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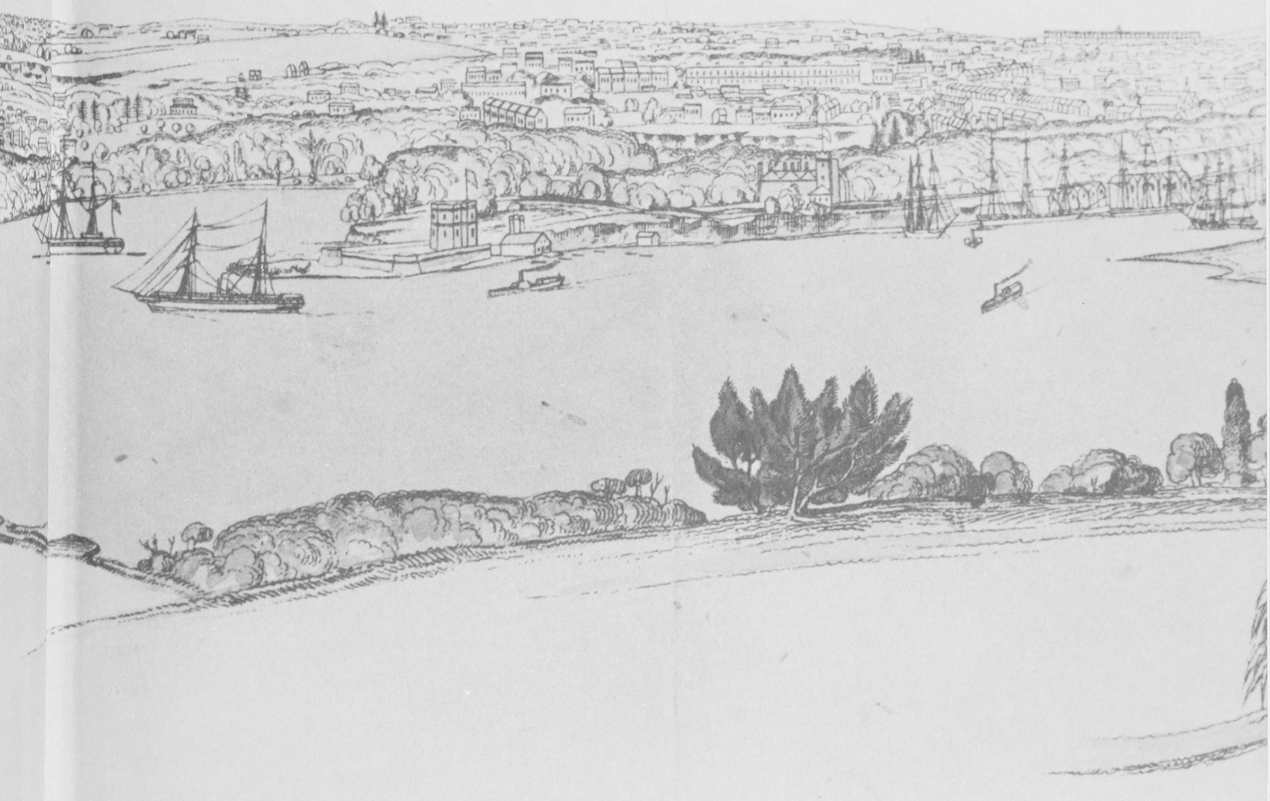
hra
Botanical Gardens
Paddington
Fort Macquarie
Man o' W anchorage
The "Governor Blackall,"
Iron Screw Steamer 528 Tons B. M., Built for the
Queensld Govt. by Morts Dock & Engineering Co.
The Inner Domain
Government House
Wolomoloo
The Outer Domain
The Barracks
Darlin
The Semi-circul

DUSTCOVER: The *Bounty,* one of the ships from Jonathan King's First Fleet Re-enactment Voyage from Portsmouth to Farm Cove, is welcomed into Sydney Harbour on Australia Day, 26 January 1988. The *Bounty*, built in 1979 as a full scale authentic replica of the 1789 built *HMS Bounty*, played the part of the original naval flagship, *HMS Sirius*, on the re-enactment voyage. *This photograph was taken from Shark (or Steel) Point at Nielson Park by Michael Antill.*

FRONTISPIECE: Sydney celebrates its 200th birthday with a fireworks display on Australia Day, 1988.

Maritime Services Board of N.S.W.

ENDPAPERS: Two sections from a sketch of the southern shore of Port Jackson and the City of Sydney as seen from North Sydney, 1870. Drawn by James Willis of the Surveyor General's Department, Sydney, this sketch was included in the book *The Industrial Progress of New South Wales: being a Report of the Intercolonial Exhibition of 1870, at Sydney*, printed by Thomas Richards, Government Printer.
Front endpaper: a view of the eastern part of the City of Sydney stretching from Garden Island (*on the left*) to Circular Quay (*on the right).*
Back endpaper: a view of the City of Sydney stretching from Circular Quay (*on the left*) to Balmain (*on the right*).

NEW SOUTH WALES
YEAR BOOK

No. 71 1988

JOHN WILSON
DEPUTY COMMONWEALTH STATISTICIAN

AUSTRALIAN BUREAU OF STATISTICS
SYDNEY OFFICE

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FOREWORD FROM THE GOVERNOR OF NEW SOUTH WALES,

HIS EXCELLENCY

AIR MARSHAL SIR JAMES ROWLAND, A.C., K.B.E., D.F.C., A.F.C.

Two hundred years ago, not long by the standards of the Old World, Captain Arthur Phillip, with 1,030 souls, landed in New South Wales to found the first western settlement on the Australian continent.

For them, despite its beauty, it was a strange and forbidding land, where they found no familiar vegetable or grains, nor domestic animal to serve them. No brick had been fired, no metal smelted, nor any roads nor houses built as they knew them.

For the first four years, they faced hard times, and the spectre of famine was never far away. Yet from the beginning, Phillip and his successors held to their vision of a great new nation that would grow on these shores, and worked and planned for its birth.

That nation, built gradually on the solid base of its British legal and Parliamentary heritage by the fortitude of its founders and the energy and inventiveness of people from all over the world, has grown and prospered, until now, at its Bicentennial, it comprises some 16 million people. The diversity of culture and experience they brought with them, together with that of earlier years, has continually enriched all aspects of life, and the country's climate and natural resources have endowed its people with opportunities and a style of work and recreation unique in the world.

New South Wales, its cradle, is still the most populous and industrialised of its States, and Sydney, on one of the great seaports of the world, its largest city.

This special 1988 edition of the New South Wales Year Book, now in its 101st year, is a most fitting and valuable contribution to our Bicentennial celebrations. The Year Book has provided a factual and informative record of the history and development of the State, and of its tremendous achievements in the two centuries which have passed since those first faltering beginnings. It contains this year an excellent pictorial supplement of some 400 photographs, which trace important events in the development of our State, and adds another dimension of interest and perspective to this important publication.

It measures the results of the countless activities of citizens of every calling over our proud history, and it will stand as a yardstick for those who will carry this great State forward into its third century of golden promise.

MESSAGE FROM THE PREMIER, THE HON. B.J. UNSWORTH, M.P.

FOR THE 1988 NEW SOUTH WALES YEAR BOOK

Sydney was the birth place of Australia and, for us in New South Wales, the Bicentenary is a double celebration — it is a celebration of nationhood but also a celebration of Statehood.

This is the Premier State of Australia and we are proud to take a leading role in the **development of the nation.**

1988 will be a year both to commemorate the remarkable achievements of the past 200 years and to set goals for the future, to think hard and look hard to our future directions.

Throughout the country, governments, individuals and communities will be taking part in this double process of celebration and preparation for the future and I believe the country as a whole will benefit.

There will, for all of us, be great memories of the major events to take place in 1988. I believe, however, that one of the most valuable legacies of our bicentenary will be the many projects being built as monuments to our first 200 years by communities across the State.

Through the Bicentennial Public Works Program and the extensive work of the New South Wales Bicentennial Council, we have worked in this State to make sure there is far more than fond memories and photographs of the events to remind us of 1988.

The Government has helped communities and organisations throughout New South Wales to undertake building and environmental projects, arts and sports programs that will continue to contribute to the education, welfare and lifestyle of our people for many years to come.

I like to think of this as a bricks and mortar Bicentenary, as a celebration to enrich us now and in the future.

This book is one of many lasting and important Bicentennial projects. The photographic collection in the segments which trace our colourful history over 200 years, will not only be a valuable addition to the Year Book, but an enduring visual history to treasure for the future.

I congratulate the Australian Bureau of Statistics on its careful and dedicated work in putting together this most important edition of the N.S.W. Year Book.

Barrie Unsworth

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GENERAL INFORMATION

Symbols and other Usages

Standard notations are used throughout this publication, with meanings as follows:

n.a.	not available
n.e.i.	not elsewhere included
n.p.	not available for separate publication (but included in totals where applicable)
n.y.a.	not yet available
p	preliminary — figure or series subject to revision
r	figure or series revised since previous issue
. .	not applicable
—	nil or rounded to zero
———	break in continuity of series (where a line is drawn across a column between two consecutive figures)

Yearly periods shown as, e.g. 1987, refer to the year ended 31 December 1987; those shown as, e.g. 1986-87, refer to the year ended 30 June 1987. Other yearly periods are specifically indicated.

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

Availability of ABS Data

The Australian Bureau of Statistics, ABS, has an information service in each of its offices. These services may be obtained in N.S.W. by contacting Information Services, Box 796 GPO, Sydney 2001, phone (02) 268-4611, or by calling at the Australian Bureau of Statistics, St. Andrews House, Sydney Square, Sydney. A list of the complete range of publications available from the ABS can be obtained from any ABS office. In some cases, the ABS can also make available information which is not published. This information may be made available in one or more of the following forms: microfiche, photocopy, data tape, computer printout, clerically-extracted tabulation. Access to a wide range of ABS statistics is also available through the VIATEL videotext system; on AUSSTATS, ABS's on-line service through CSIRONET; and on TELESTATS, Telecom's Telememo electronic mail service.

Imperial and Metric Measurements

In Australia, Decimal currency was introduced in 1966 (when two dollars replaced one pound), and the Imperial system of weights and measures was replaced by the Metric system in the 1970's. Information contained in the captions to the photographs in this Year Book was obtained in many cases from original documents or reference sources which used Imperial measure and, generally, these were not converted to metric. A summary conversion table is given below. Further information about the Metric Conversion, including tables of Imperial and Metric equivalents, was given in an appendix to the 1974 issue of the Year Book.

Imperial	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*
1 foot	30.5 cm	1 sq ft	929 sq cm	1 pint	568 ml
1 yard	0.914 m	1 sq yd	0.836 sq m	1 gallon	4.55 L
1 mile	1.61 km	1 acre	0.405 ha	1 mph	1.61 km/h
1 ounce	28.3 g	1 sq mile	2.59 sq km	1 hp	0.746 kW
1 pound	454 g	1 ton	1.02 t		

PREFACE

The *New South Wales Year Book* is the main reference work issued by the New South Wales Office of the Australian Bureau of Statistics. It presents a comprehensive statistical profile of the social, demographic and economic structure of New South Wales, and describes the legislative provisions and administrative arrangements which are of significance in the interpretation and analysis of the statistics of the State.

This, the 71st edition, marks the achievement of 100 years of continuity in the publication of the *New South Wales Year Book* which was titled from the first edition released in 1887 until 1902 as the *Wealth and Progress of New South Wales*. The Year Book has become a major reference source for the State, providing a valuable historical record of the statistics of New South Wales.

This edition of the Year Book is a special issue commemorating the Bicentenary of European settlement in New South Wales. It is endorsed by the N.S.W. Bicentennial Council as an official Bicentennial publication.

The main feature of this special Bicentennial edition is the inclusion of over 400 photographs depicting the development of the State over the past 200 years. This feature was facilitated by the access, which was readily given, to a number of State and Commonwealth Government and private sources of historical photographs and a contribution of $5,000 by the State Government towards the additional cost involved.

This issue also describes some of the many programs and activities being undertaken in New South Wales to celebrate the Bicentenary. These are listed in Chapter 8.

More up-to-date and more detailed statistics relating to matters treated generally in this publication are available in a series of specific subject bulletins issued by the ABS, ranging from preliminary monthly statements to detailed bulletins presenting the results of periodic censuses, etc.

My thanks are tendered to the officers of the various Commonwealth and State Government authorities and others who have provided contributions to this Year Book. Thanks are also due to the various private and government organisations, and private individuals in the community, who have supplied the basic data from which the statistics of the State have been compiled, and to many ABS officers who have contributed to the preparation of material for the Year Book. Lastly, I pay a special tribute to the Editor, Michael Antill, and his team for their work on the development of the special photographic segments.

JOHN WILSON
Deputy Commonwealth Statistician

Australian Bureau of Statistics
Sydney,
March 1988

1

NATURAL ENVIRONMENT

GEOGRAPHY

The name "New South Wales" was given to the eastern part of Australia (then known as New Holland) on its discovery by Captain Cook in 1770, and for fifty-five years all Australian territory east of the 135th meridian of east longitude was known by that name. In 1825, shortly after the separation of Tasmania (Van Diemen's Land), the western boundary was moved to the 129th east meridian. Thereafter, the boundaries of New South Wales contracted as its former territory was proclaimed as separate colonies — South Australia in 1836, New Zealand in 1841, Victoria in 1851 and Queensland in 1859. Subsequent adjustments occurred in 1861 to 1863 when the Northern Territory and the territory between the 129th and 132nd east meridians were separated, in 1911 when the Australian Capital Territory was ceded to the Commonwealth Government, and in 1915 when part of Jervis Bay was transferred to the Commonwealth Government. A more detailed account of these territorial adjustments of New South Wales since 1788 is outlined on page 1 of Year Book No. 64.

The present boundaries of New South Wales are as follows — on the east, the South Pacific Ocean from Point Danger to Cape Howe; on the west, the 141st meridian of east longitude; on the north, the 29th parallel of south latitude proceeding east to the Barwon River, thereafter along the Macintyre and Dumaresq Rivers to the junction with Tenterfield Creek, and thence along the crest of a spur of the Great Dividing Range, the crest of that range north to the McPherson Range, and along the crest of the McPherson Range east to the sea; on the south, the southern bank of the Murray River to its source at the head of the River Indi, and thence by direct marked line to Cape Howe.

The greatest dimension of the State is along a diagonal line from Point Danger to the south-west corner of the State — a distance of 1,370 kilometres. The shortest dimension, along the western boundary, is about 550 kilometres. The length of coast, measured direct from Point Danger to Cape Howe, is 1,099 kilometres, the actual length of seaboard being 1,900 kilometres. The greatest breadth, measured along the 29th parallel of latitude, is 1,217 kilometres.

The area of the States and Territories and the length of the coastline of Australia were determined in 1973 by the Division of National Mapping of the Department of Resources and Energy by manually digitising these features from the 1 : 250,000 map series of Australia. Consequently, only features of measurable size at this scale were considered. About 60,000 points were digitised at an approximate spacing of 0.5 kilometres and these points were joined by chords as the basis for calculation of areas and coastline lengths by computer. Areas and lengths of coastline determined by the foregoing method are given in the following table. The Division of National Mapping is also progressively revising areas of local government authorities but has not yet completed this work.

Manuscript of this chapter prepared in April 1987.

Area, Coastline, Tropical and Temperate Zones: Australia

	Estimated area				*Proportion of total area in*	
State or Territory	*Total*	*Proportion of total area*	*Ratio of area to area of N.S.W.*	*Length of coastline*	*Tropical zone*	*Temperate zone*
	sq km	per cent		km	per cent	per cent
New South Wales	***(a)*801,600**	**10.43**	**1.00**	**1,900**	—	**100**
Victoria	227,600	2.96	0.28	1,800	—	100
Queensland	1,727,200	22.48	2.15	7,400	54	46
South Australia	984,000	12.81	1.23	3,700	—	100
Western Australia	2,525,500	32.87	3.15	12,500	37	63
Tasmania	67,800	0.88	0.08	3,200	—	100
Northern Territory	1,346,200	17.52	1.68	6,200	81	19
Australian Capital Territory	2,400	0.03	—	35	—	100
Australia	**7,682,300**	**100.00**	**9.58**	**36,735**	**39**	**61**

(a) See paragraph following table.

The official area of the State of New South Wales, determined by the (State) Lands Department (based on land surveys), is 801,428 square kilometres. This official figure is used in other tables shown in this Year Book.

Lord Howe Island. Lord Howe Island, which was discovered in 1788, is situated 702 kilometres north-east of Sydney and about 580 kilometres east of Port Macquarie. Mount Gower (866 metres) and Mount Lidgbird (763 metres) dominate the Island, which is of volcanic origin and has an area of 16.54 square kilometres. The climate of the Island is temperate and the rainfall abundant, but because of the rocky formation of most of its surface, only 120 hectares are suitable for cultivation. Most of the arable area is devoted to the production of Howea (Kentia) palm seed. The Island is linked with Sydney by a daily air service, and is a favoured tourist resort.

Under the (State) Constitution Act 1902, Lord Howe Island is part of New South Wales and is included for purposes of State parliamentary representation for the 49th and subsequent Parliaments in the metropolitan electoral district of McKell. The Lord Howe Island Act 1953 makes provision for the care, control and management of the Island and constitutes the Lord Howe Island Board. The Board, which administers the affairs of the Island, consists of five members including 3 Islanders, a government departmental representative, and an officer of the National Parks and Wildlife Service. The land is vested in the Crown and is leased at nominal rents. The Lord Howe Island group has been included on the World Heritage List.

PHYSICAL FEATURES

Natural features divide New South Wales into four main zones extending from north to south — the coastal districts, the tablelands (which contain the Great Dividing Range between the coastal districts and the plains), the western slopes of the Great Dividing Range and the western plains.

The coastal districts are undulating, well watered and fertile. Their average width is 80 kilometres in the north and 30 kilometres in the south — the widest portion being 240 kilometres in the valley of the Hunter River. The coastline is regular with numerous sandy beaches, inlets and river estuaries, and, at intervals, there are lakes, partly marine and partly estuarine, which provide extensive fishing grounds and tourist resorts.

The tablelands are formed by an almost unbroken succession of plateaus, varying in width from 50 to 160 kilometres and forming the main watershed. The average height of the northern tableland is 750 metres, but a large portion in the New England Range has an altitude greater than 1,200 metres. The average height of the southern tableland is slightly less than the northern, though the Kosciusko Plateau, which it contains, is the most elevated part of the State, rising at Mount Kosciusko (Australia's highest peak) to an elevation of 2,228 metres. The Jenolan and other caves occur in the limestone belt in the central portion of the tablelands.

To the west, the tablelands slope gradually to the western plains. The western slopes are, in the main, a fertile, undulating region, with rich plains along the rivers and occasional rugged areas. They are watered by the upper courses of the inland rivers, and have an adequate and regular rainfall.

The western plains cover nearly two-thirds of the area of the State. Their surface consists of fertile red and black soils, but, particularly in the western sections, the rainfall is low and intermittent and the rate of evaporation is high. The plains are traversed by the western rivers in their lower courses, but the rivers do not water a very extensive area because they are few and their natural flow is irregular.

Principal Rivers

The tablelands, which contain the Great Dividing Range and form the main watershed, divide the rivers of New South Wales into two distinct groups — the coastal rivers and the inland rivers. The coastal rivers are mostly short, independent and fast-flowing streams, which carry more than two-thirds of the State's total surface water resources, although they drain only about one-sixth of the area of its land surface. The principal coastal rivers include the Nepean/Hawkesbury (approximately 470 km in length), Hunter (460 km), Clarence (395 km), Macleay (400 km), Shoalhaven (330 km), Richmond (260 km), Snowy (485 km, of which 255 km is in New South Wales), Manning (225 km), and Hastings (175 km). The inland rivers belong to the Murray-Darling system and are for the most part long, slow and meandering. All of the inland rivers flow generally westward into drier country and their flows are progressively diminished by natural transmission losses by evaporation and seepage from the river channels, and from usage for irrigation, stock and domestic, and town water supplies. The most important of the inland rivers is the Murray (2,590 km in length, of which 1,880 km is in New South Wales), which forms part of the border of the State and is fed by the snows of the southern tablelands. The Darling River system is the longest in New South Wales, comprising the Darling, Barwon, Macintyre and Dumaresq Rivers. The total length is 2,740 km, of which 2,615 km is in New South Wales. It flows across western New South Wales from the north-east to join the Murray in the south-west at Wentworth. Large parts of the catchment areas of both the Murray and Darling lies beyond the State borders in Victoria and Queensland. Other principal inland rivers include the Murrumbidgee (1,580 km), Lachlan (1,485 km), Macquarie (950 km), Namoi (845 km), Gwydir (670 km) and Castlereagh (550 km).

The flows of rivers in New South Wales vary greatly — from very large volumes of water during floods and scarcely flowing during protracted droughts. Because of this variability, dams, weirs and other forms of storage have been constructed on major rivers, thus enabling regulated flows to be provided. These storage works also give some degree of flood mitigation. These are described in Chapter 13 "Water Resources". Details of the catchment areas of the principal rivers and their average annual water flow are shown on page 4 of Year Book No. 64.

CLIMATE

New South Wales is situated entirely in the temperate zone. Its climate is generally mild and equable and mostly free from extremes of heat and cold, but very high temperatures are experienced in the north-west and very cold temperatures on the southern tablelands. Abundant sunshine is experienced in all seasons. Sydney, the capital city, is without sunshine on an average of only 23 days per year, and the average range of temperature between the hottest and coldest month is less than 11° Celsius. In the hinterland, there is even more sunshine but the range of temperature is greater.

Practically the whole of New South Wales is subject to the influence of frosts during five or more months of the year. Snow has been known to fall over nearly two-thirds of the State, but its occurrence is comparatively rare except in the tableland districts. Snow is found during most of the year on the peaks of the southern tablelands.

Although there are no definite dates dividing the year into seasons, for convenience the seasons in New South Wales are generally defined as follows — *spring* during September, October and November, *summer* during December, January and February, *autumn* during March, April and May, and *winter* during June, July and August. These seasons are less distinct in the western interior of the State than in coastal areas.

Meteorological Observations

Meteorological services within Australia are the responsibility of the Bureau of Meteorology. The Head Office of the Bureau is in Melbourne and there is a Regional Office in each State's capital city which directs the Bureau's activities throughout that State.

The New South Wales Regional Office in Sydney runs a network of about 1500 rainfall recording stations across the State, of which about 150 also measure temperature, humidity, wind and sometimes other variables such as evaporation and sunshine hours. These observations are used to prepare bulletins and maps for public information and charts for use in forecasting. Forecasts issued cover ocean and coastal areas as well as the land, and special types of forecast are prepared for aviation, shipping and other special interests, in addition to those prepared for the general public. Warnings of particularly hazardous conditions such as strong winds, gales, floods and extreme fire danger are issued when necessary. Dissemination of forecasts and warnings is generally through the media (mainly TV and radio), or direct to government authorities with a special interest in the information.

In addition to the forecasting service, the meteorological observations recorded in New South Wales are used to provide a climatological data service to the public and on request to particular clients. The data collected are of interest to consultants, manufacturers, research workers and students in many different fields, including agriculture, engineering, building and insurance, and to solicitors engaged in legal disputes.

WINDS

The weather in New South Wales is determined chiefly by anti-cyclones (areas of high barometric pressure) with their attendant tropical and southern depressions. The anti-cyclones pass almost continually across or to the south of the continent of Australia from west to east. A general surging movement occasionally takes place in the atmosphere, sometimes towards, and sometimes from, the Equator. The movement causes sudden changes in the weather — heat when the surge is to the south, and cold weather when it moves towards the Equator.

New South Wales is subject to occasional intense cyclonic disturbances (not usually exceeding three in any year) in the months February to May. Intense lows may result from an inland depression, or may reach the State from the north-east tropics or from the southern low-pressure belt which lies to the south of Australia. In the summer months, the prevailing winds on the coast are north-easterly, mainly on account of the consistency of the sea breezes, and they extend inland to the highlands. West of the Great Dividing Range, however, the winds are variable, being dependent on the control of the various atmospheric systems; they have a marked northerly component in the northern half of the State and a pronounced southerly component in the southern areas. Southerly changes are characteristic of the summer weather on the coast. These winds, which blow from the higher southern latitudes, cause a rapid fall in the temperature and sometimes are accompanied by thunderstorms. During winter, the prevailing direction of the wind is westerly. In the southern areas of the State, the winds are almost due west, but proceeding northwards there is a southerly tendency. Australia lies directly in the great high-pressure belt during the cold months of the year.

TEMPERATURE

The territory of New South Wales may be divided into four climatic regions which correspond with the terrain — the coastal districts, the tablelands, the western slopes of the Great Dividing Range and the western plains.

The northern parts of the State are generally warmer than the southern, the difference between the average temperatures of the extreme north and south being about 4°C on the coast, 3°C on the tablelands and plains, and 2°C on the slopes. It should be noted, however, that the length of the State decreases from approximately 1,100 kilometres on the coast to about 550 kilometres on the western boundary. From east to west, the average mean annual temperatures vary little except where altitudes are different, but usually the summer is hotter and the winter colder in the interior than on the coast. Thus at Sydney the average temperature ranges from 22°C in summer to 13°C in winter, as compared with 24°C in summer and 11°C in winter at Mildura (on the Victorian border) on the same latitude in the western interior. Similar variations are found in the north. The mean daily range at any station is seldom more than 17°C or less than 8°C.

EVAPORATION

The rate of evaporation is influenced by several factors including temperature, humidity, pressure and wind. In New South Wales, evaporation is important because in the greater part of the inland districts water for use by stock is generally conserved in open tanks and dams. Actual measurements of the loss by evaporation have been made at a number of stations, and the average monthly evaporation (measured by loss from exposed water) over a period of years is shown below, together with the average monthly rainfall over the same period. The total annual loss by evaporation is about 1,800 millimetres on the coast and southern tablelands and as much as 2,500 millimetres in the west. In the far north-western corner of the State, for which actual records are not available, the total loss from evaporation is probably equal to nearly 3,000 millimetres per year.

Average Evaporation and Rainfall Over a Period of Years, N.S.W. and A.C.T.
(*Source:* Bureau of Meteorology)
(millimetres)

Station	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Walgett —													
Evaporation	245	204	183	123	74	51	56	77	123	177	216	257	1,786
Rainfall	65	58	42	32	39	37	32	29	28	39	40	40	481
Cobar —													
Evaporation	372	302	263	171	108	72	81	115	162	232	306	387	2,571
Rainfall	55	43	40	25	37	25	27	32	25	36	34	36	415
Umberumberka (near Broken Hill) —													
Evaporation	379	346	303	178	116	74	86	130	188	248	323	372	2,743
Rainfall	19	17	15	14	19	16	14	14	17	20	19	18	202
Griffith —													
Evaporation	276	235	189	111	68	42	50	77	108	167	222	285	1,830
Rainfall	31	29	35	35	37	38	31	39	32	43	29	31	410
Wellington —													
Evaporation	273	216	189	123	77	51	53	74	105	158	210	282	1,811
Rainfall	66	68	54	40	49	40	43	47	45	67	53	47	619
Glen Innes —													
Evaporation	167	137	133	96	65	48	53	74	105	130	153	180	1,341
Rainfall	105	93	71	40	49	57	58	50	56	80	84	108	851
Canberra —													
Evaporation	257	204	167	105	71	48	53	81	111	158	195	260	1,710
Rainfall	60	58	55	48	48	38	38	48	52	69	61	51	626
Sydney —													
Evaporation (Airport)	220	179	164	123	93	81	90	118	141	170	195	242	1,816
Rainfall (Observatory Hill)	102	113	136	124	122	132	102	77	69	78	81	78	1,214

RAINFALL

Rainfall in New South Wales is associated mainly with tropical and southern depressions. The distribution of rainfall is dependent on the energy present in, and the rate of movement of, the atmospheric stream and the prevailing latitudes in which the anti-cyclones are moving. Rainfall exerts a very powerful influence in determining the character of settlement, but its effects can be gauged only in a general way from annual averages of quantity of rain, because consideration should also be given to other important factors such as reliability and seasonal distribution.

The annual amount of rain varies greatly over the wide expanse of the State. Coastal districts receive the largest annual rains, ranging from an annual average of about 800 millimetres in the south to about 1,500 millimetres in the north. Despite their proximity to the sea, the mountain chains are not of sufficient height to cause any great condensation, so that (with slight irregularities) the average rainfall gradually diminishes towards the north-western limits of the State. The average annual rainfall in the north-western corner is about 200 millimetres.

An approximate classification of the area of New South Wales according to the average rainfall to which the area is subject is given in the next table. About 35 per cent of the area of the State receives less than 350 millimetres of rain per year.

Area of New South Wales *(a)* Classified by Annual Rainfall (*Source:* Bureau of Meteorology)

Average annual rainfall (millimetres)	*Approximate area (sq km)*	*Proportion of total area (per cent)*	*Average annual rainfall (millimetres)*	*Approximate area (sq km)*	*Proportion of total area (per cent)*
Under 250	99,680	12.4	*700 and under 1,000*	106,110	13.2
250 and under 350	177,650	22.1	*1,000 and under 1,400*	50,640	6.3
350 and under 500	184,890	23.0	*1,400 or more*	15,280	1.9
500 and under 700	169,610	21.1			
			Total	**803,860**	**100.0**

(a) Includes Australian Capital Territory.

Over the greater part of the State, the annual rainfall varies from year to year by about 20 to 35 per cent of the mean, but the degree of variation is less in the south-eastern corner and more in the north-western quarter. Protracted periods of dry weather in one part or another are not uncommon, but simultaneous drought over the whole territory of the State has been experienced only very rarely.

The seasonal distribution of rainfall may be described as follows. A winter rain region, which includes the southern portion of the western plains and about two-thirds of the Riverina, is bounded on the north by a line from Broken Hill to Wagga Wagga with a curve around Albury. A summer rain region, including the whole of the northern subdivision, is bounded on the south by a line which waves regularly, first south and then north of a direct line from the north-western corner of the State to Newcastle. Between these there extends a region, including the central and south-eastern portions of the State, where the rains are distributed fairly evenly throughout the year, but a narrow coastal strip between Nowra and Broken Bay receives its heaviest rains in the autumn.

Southern depressions are the main cause of good winter rains in the Riverina and on the southern highlands. A seasonal prevalence of this type of weather would cause a low rainfall on the coast and over that portion of the inland district north of the Lachlan River. A tropical prevalence ensures a good season inland north of the Lachlan, but not necessarily in southern areas. An anti-cyclonic prevalence results in good rains over coastal and tableland districts, but causes dryness west of the mountains.

The following table shows, for each rainfall district in the State, the annual rainfall during each of the last ten years and the average annual rainfall over the years 1913-1985. The figures for each district are averages of the rainfall registered at the recording stations located within the district. The rainfall districts are sometimes subdivided into northern and southern or eastern and western sections, as indicated by the letters *N,S,E,W.*

In relation to agricultural industries, the seasonal distribution and reliability of the rainfall, rather than the annual aggregate, are the important considerations. In wheat farming, for instance, sufficient moisture is required to enable the soil to be prepared for planting (which takes place from April to June), to promote germination of the seed and steady growth, and then for the filling of the grain (about August or September for early crops) until harvesting (from November to January). Heavy rains may delay ploughing and sowing, or later in the season may cause disease or rank growth or beat down the crops. For dairy farming, conducted mainly in the coastal areas, a more even distribution of rainfall is desirable to maintain the pastures in a satisfactory condition throughout the year. For sheep, spring and autumn rains are needed to ensure supplies of water and herbage, with summer rains of sufficient quantity to mitigate the effect of warm sunshine on the pastures; too much rain is likely to cause disease in the flocks.

The average monthly rainfall in each of the rainfall districts of the State is shown in the table opposite. The averages are based on records of rainfall registered at recording stations over the years 1913-1985.

Annual Rainfall, New South Wales
(*Source:* Bureau of Meteorology)
(millimetres)

Rainfall district		*Average rainfall (a)*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Coastal —												
North Coast	*N*	1,453	1,168	1,512	1,213	1,254	1,333	1,304	1,852	1,621	1,396	785
	S	1,501	1,619	1,291	1,055	1,124	1,339	1,476	1,746	1,573	1,823	950
Manning		1,349	1,343	1,559	904	817	1,116	1,269	1,446	1,436	1,687	1,100
Hunter		896	852	1,269	635	461	934	711	922	1,064	934	705
Metropolitan	*E*	1,147	1,024	1,633	759	693	1,116	785	1,175	1,346	1,074	1,123
	W	816	731	1,190	447	464	846	483	773	1,010	834	868
Illawarra		1,102	826	1,631	700	624	1,032	601	1,195	1,426	1,247	1,006
South Coast		945	769	1,319	613	465	717	375	1,024	1,087	1,047	611
Tablelands —												
Northern Tablelands	*E*	1,004	845	1,012	861	820	1,047	1,157	1,338	1,068	992	634
	W	812	807	1,063	648	538	719	601	1,061	955	781	601
Central Tablelands	*N*	648	572	865	518	366	717	332	773	768	594	516
	S	902	694	1,294	543	573	1,021	487	1,041	1,193	892	964
Southern Tablelands	*N*	674	497	912	399	507	634	307	781	801	655	549
	S	882	524	1,133	506	638	848	483	1,027	834	724	678
Western Slopes —												
Northwest Slopes	*N*	674	708	938	541	512	598	537	943	857	653	497
	S	655	804	879	520	450	601	406	800	894	619	519
Central Western Slopes	*N*	632	602	815	482	442	576	410	833	726	596	403
	S	599	452	886	362	397	559	255	691	731	591	457
Southwest Slopes	*N*	602	399	754	357	469	531	242	760	833	725	948
	S	805	591	1,039	655	801	936	426	1,107	995	833	579
Western Plains —												
Northwest Plains	*E*	584	670	727	467	382	472	398	903	784	559	443
	W	513	568	666	364	286	401	335	515	590	444	338
Central Western Plains	*N*	475	433	637	327	363	450	263	663	640	482	328
	S	473	370	737	287	300	389	205	613	624	424	329
Riverina	*E*	473	285	663	361	373	490	206	577	504	471	465
	W	359	254	512	328	275	394	153	476	482	381	359
Western (Far Northwest)		227	130	282	300	134	284	121	249	399	192	188
Western (Lower Darling)		248	161	371	277	258	246	98	292	332	240	240
Western (Upper Darling)		348	376	513	249	227	366	162	614	401	332	278
Western (Southwest Plains)		344	256	464	328	227	381	158	502	441	310	285

(a) Average over the years 1913-1985.

Average Monthly Rainfall, New South Wales, 1931 to 1985
(*Source:* Bureau of Meteorology)
(millimetres)

Rainfall district		*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
Coastal —													
North Coast	*N*	167	191	190	138	132	114	86	59	56	88	103	129
	S	174	194	204	148	123	119	76	64	61	97	105	136
Manning		135	153	164	138	122	130	77	68	71	94	90	107
Hunter		96	91	96	80	75	85	58	49	54	65	64	83
Metropolitan	*E*	109	103	135	110	116	124	78	65	61	82	81	83
	W	95	90	90	72	68	69	46	37	43	62	73	71
Illawarra		101	108	122	103	103	112	74	60	64	86	82	87
South Coast		87	94	101	86	86	89	55	54	58	79	77	79
Tablelands —													
Northern Tablelands	*E*	144	144	131	71	60	57	48	33	42	73	84	117
	W	106	89	64	41	47	54	55	47	53	78	82	96
Central Tablelands	*N*	72	65	54	44	45	49	48	47	46	58	60	60
	S	96	92	81	71	67	75	66	61	60	77	75	81
Southern Tablelands	*N*	63	56	58	51	55	54	49	51	50	66	59	62
	S	65	59	69	64	75	75	75	82	80	93	75	70
Western Slopes —													
Northwest Slopes	*N*	83	79	55	37	44	44	46	37	41	63	68	77
	S	83	68	48	39	42	47	46	43	43	61	63	72
Central Western Slopes	*N*	78	70	54	43	42	48	46	42	42	54	53	60
	S	60	55	50	43	47	50	48	47	42	56	50	51
Southwest Slopes	*N*	51	43	47	47	51	53	54	55	47	60	46	48
	S	53	46	55	61	71	78	84	89	72	83	58	55
Western Plains —													
Northwest Plains	*E*	76	65	52	34	41	41	42	33	34	49	57	60
	W	72	64	47	31	34	35	36	27	29	42	47	49
Central Western Plains	*N*	56	52	41	33	37	38	35	30	30	42	40	41
	S	47	44	41	35	39	39	35	35	31	44	40	43
Riverina	*E*	36	33	36	37	43	44	42	45	40	49	33	35
	W	29	27	30	28	34	33	29	31	29	37	25	27
Western (Far Northwest)		28	29	24	15	18	16	15	13	13	21	14	21
Western (Lower Darling)		22	22	18	18	23	20	20	19	21	26	20	19
Western (Upper Darling)		44	42	36	23	26	26	25	19	18	29	27	33
Western (Southwest Plains)		30	29	30	24	31	29	27	28	26	35	27	28

SYDNEY

Sydney is situated on the coast about half-way between the extreme northern and southern limits of the State. Its mean annual temperature is 17.6°C. The seasonal range of mean temperature is only 7.8°C, the mean summer temperature being 21.7°C and the mean winter temperature 12.7°C. On the average, rain occurs on only 147 days in the year. The hours of sunshine average 6.7 a day over the whole year, ranging from an average of 5.3 hours daily in June to 7.6 hours daily in November.

The climatic conditions of Sydney are illustrated by the next table, which shows averages over all years of record to the end of 1986 for barometric pressure, temperature, hours of sunshine, rainfall and relative humidity.

Climatic Conditions: Sydney (Observatory Hill)
(*Source:* Bureau of Meteorology)

Month	Barometric pressure (hpa) (a)	Temperature (in shade)(°C)			Average hours of sunshine per day	Rainfall (mm)			Average number of days on which rain fell	Relative humidity at 9 a.m. (mean) (per cent)
		Mean daily	Mean maximum	Mean minimum		Average	Greatest	Least		
January	1,012.7	22.1	25.8	18.4	7.2	102	388	6	13	67
February	1,014.3	22.0	25.5	18.5	6.8	113	564	3	13	71
March	1,016.4	21.0	24.6	17.4	6.4	135	521	8	14	74
April	1,018.3	18.4	22.2	14.6	6.3	124	622	2	13	73
May	1,018.9	15.5	19.6	11.3	5.8	121	585	4	13	77
June	1,018.8	12.9	16.7	9.2	5.4	131	643	4	12	76
July	1,018.6	11.9	15.9	7.9	6.3	101	336	2	11	72
August	1,017.9	13.2	17.5	8.9	7.0	80	471	1	11	68
September	1,017.0	15.3	19.7	10.9	7.2	69	357	2	11	66
October	1,015.3	17.7	21.9	13.4	7.3	78	283	2	12	62
November	1,013.6	19.5	23.5	15.5	7.6	81	517	2	12	61
December	1,012.0	21.1	25.0	17.3	7.5	77	402	3	12	64
Year	**1,016.2**	**17.6**	**21.5**	**13.7**	**6.7**	**1,214**	**2,193**	**584**	**147**	**69**

(a) Average hourly reading of standard barometer, corrected to 0°C, standard gravity, and mean sea level.

Sydney's highest and lowest recorded (shade) temperature were 45.3°C on 14 January 1939 and 2.1°C on 22 June 1932.

The highest rainfall recorded on any day was 328 millimetres, on 6 August 1986. The heaviest recorded rainfall in one hour was 121 millimetres on 8 November 1984, and the heaviest in six hours was 202 millimetres also on 8-9 November 1984.

STANDARD TIME

The mean solar time of the 150th meridian of east longitude has been adopted as the standard time for New South Wales, which is therefore 10 hours ahead of Greenwich Mean Time (G.M.T.). However, South Australian standard time has been adopted as the standard time in the Broken Hill district in the far west of the State.

The standard time in Queensland, Victoria, Tasmania and the Australian Capital Territory is the same as for New South Wales. In South Australia and the Northern Territory, the standard time is that for meridian 142°30'E. longitude, or 9½ hours ahead of G.M.T. In Western Australia, the standard is for meridian 120°E. longitude, or 8 hours ahead of G.M.T.

Daylight Saving

New South Wales introduced "summer time" daylight saving of one hour on a permanent basis in 1972; it normally operates from the last Sunday in October to the first Sunday in March of the following year. Summer time on Lord Howe Island is one half-hour ahead of standard time and applies for the same period as daylight saving in the remainder of New South Wales. Daylight saving of one hour also operates in Victoria, South Australia, Tasmania and the Australian Capital Territory but not in Queensland, Western Australia or the Northern Territory.

FURTHER REFERENCES

Annual Reports of the Lord Howe Island Board and the Department of Science and Technology; *Monthly Weather Review, New South Wales* by the Department of Science and Technology.

2

GOVERNMENT

GOVERNMENT OF NEW SOUTH WALES

SOURCES OF LEGISLATIVE AUTHORITY

New South Wales is one of the six federated States which, together with the Australian Capital Territory and the Northern Territory, constitute the Commonwealth of Australia. Australia is a fully self-governing nation, freely associated with other nations as a member of the British Commonwealth of Nations.

Within the State of New South Wales, there are three levels of government — the Commonwealth Government, with authority derived from a written constitution, and centred in Canberra; the State Government, with residual powers, centred in Sydney; and the local government authorities, with powers based upon a State Act of Parliament, operating within incorporated areas extending over almost 90 per cent of the State.

The present system of State Government dates from 1856, and the Commonwealth Government was established in 1901. Local government, previously limited to municipalities scattered throughout the State, was extended in 1906 to the whole of the Eastern and Central land divisions, and in subsequent years to almost three-quarters of the sparsely-populated Western Land Division.

A brief account of the early forms of government in New South Wales and of the introduction of the present parliamentary system was published on page 25 of the Year Book for 1921. The system of local government is described later in this chapter.

The Constitution of New South Wales is drawn from several diverse sources — certain Imperial statutes, such as the Colonial Laws Validity Act (1865), the Commonwealth of Australia Constitution Act (1900) and the Australian States Constitutional Act (1907); an element of inherited English law; amendments to the Commonwealth of Australia Constitution Act; the (State) Constitution Act 1902; certain other State statutes; the Australia Acts 1986; numerous legal decisions; and a large amount of English and local convention.

For all practical purposes, the Parliament of New South Wales may legislate for the peace, welfare and good government of the State in all matters not specifically reserved to the Commonwealth Parliament. Where any inconsistency arises between Commonwealth and State laws, the State law is invalid to the extent of the inconsistency. Prior to the passing of the Australia Acts 1986, the Imperial Parliament was legally omnipotent in local as well as in imperial affairs, but, by convention, its authority to legislate in respect of affairs of the State had not been exercised for many years.

Australia Acts 1986

At Premiers' Conferences in 1982 and 1984 it was agreed by the Prime Minister and the State Premiers to take measures to bring constitutional arrangements affecting the Commonwealth and States into conformity with the status of the Commonwealth of Australia as a sovereign, independent and federal nation. These measures included the removal of the residual constitutional links that existed between Australia and the United Kingdom Parliament, Government and judicial system and the substitution of new constitutional provisions and procedural arrangements. The details of the agreement were reached following extensive consultations between the Commonwealth, State and United Kingdom Governments and Her Majesty.

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In accordance with the agreed procedure, and to satisfy constitutional requirements, before the Australia Acts could be enacted, the Parliament and Government of each State:

(a) requested the Commonwealth Parliament, in accordance with the Commonwealth Constitution, to enact its Australia Act;

(b) requested and consented to the United Kingdom Parliament enacting its Australia Act; and

(c) requested and consented to the Commonwealth Parliament in turn requesting and consenting to the United Kingdom Parliament enacting its Australia Act. This was required under the Statute of Westminster.

In New South Wales, sections 3, 4 and 5 respectively of the Australia Acts (Request) Act 1985 achieved each of the three prerequisites.

The Acts were proclaimed to commence on 3 March 1986.

The main provisions of the Australia Acts of the Commonwealth and United Kingdom Parliaments are outlined below. The acts are identical in all material respects. The Acts preserve the entrenched provisions of State constitutions.

(a) Termination of the power of the Parliament of the United Kingdom to legislate for Australia.
The Acts terminate all powers that remained in the United Kingdom Parliament to make laws having effect as part of the law of the Commonwealth, a State or a Territory of Australia.

(b) Legislative powers of Parliaments of States.
The Acts remove remaining fetters and limitations on the legislative powers of the Parliaments of the Australian States. The residual powers of the United Kingdom Parliament to make laws for the peace, order and good government of a State are now vested in the Parliament of the State and any uncertainty which existed as to the capacity of State Parliaments to make laws that have an extra-territorial operation have been removed but not so as to confer any additional capacity to engage in relations with countries outside Australia.

(c) Termination of restrictions on legislative powers of Parliaments of States.
The Acts provide that neither the Colonial Laws Validity Act nor the common law doctrine of repugnancy will apply to State laws made after the commencement of the Australia Acts. State parliaments now have the legislative power to repeal or alter any United Kingdom law that still applies in the State.

(d) Powers of State Parliaments in relation to merchant shipping.
The Acts repeal 2 sections of the Imperial Merchant Shipping Act 1894 insofar as they form part of the laws of a State.

(e) Powers and functions of Her Majesty and Governors in respect of States.
A Governor, as Her Majesty's representative, is vested, by the Australia Acts, with all of the Queen's powers and functions in respect of the State except in relation to the appointment and dismissal of the Governor. Her Majesty may, however, be able to exercise any of those powers and functions when she is personally present in a State. In the appointment and dismissal of State Governors and in the exercise of her powers and functions when she is personally present in the State, Her Majesty will be advised directly by the Premier of the State concerned. The Governor of a State, in future, will be able to assent to all laws enacted by the Parliament of a State. The Act provides that Her Majesty is not able to disallow an Act to which the Governor has assented and no State Act can be suspended awaiting the signification of Her Majesty's pleasure. The Governor is no longer required to withhold assent from certain types of bills or reserve any bill for the signification of Her Majesty's pleasure.

(f) Termination of responsibility of United Kingdom Government in relation to State matters.
After the commencement of the Australia Acts the United Kingdom Government has no responsibility for the government of any State.

(g) Termination of appeals to Her Majesty in Council.
The Acts remove the remaining avenues of appeal from Australian Courts to the Privy Council, making the High Court of Australia the final court of appeal for all Australian courts.

The changes in the legislative powers of State Parliaments, as outlined in *(c)* and *(d)* above, are subject to the Commonwealth Constitution and the Commonwealth Constitution Act and do not enable State Parliaments to alter the Commonwealth Constitution, the Commonwealth Constitution Act, the Statute of Westminster or the Australia Acts.

Commonwealth and State Complementary Legislation

Complementary legislation between the Commonwealth and the States may establish a uniform system of law and administration in regard to certain affairs throughout Australia, such as the administration of growth centre areas embracing more than one State (the Albury-Wodonga Development Corporation), the regulation of companies and of the securities industry, the administration of the Murray River (through the River Murray Waters Agreement), coastal fishing, the National Crimes Commission and the Joint Coal Board.

THE GOVERNOR

The Australia Acts of the Commonwealth and United Kingdom Parliaments, which were enacted to sever constitutional links with the United Kingdom and which came into force on 3 March 1986, provide that Her Majesty's representative in the State shall be the Governor.

The Acts provide that all powers and functions of Her Majesty in respect of the State, except the power to appoint, and the power to terminate the appointment of, the Governor, are exercisable only by the Governor. However, while Her Majesty is personally present in the State, Her Majesty is not precluded from exercising any of Her powers and functions in respect of the State. It has been agreed that Her Majesty will only do so as a result of prior agreement. Advice to Her Majesty in relation to the appointment and termination of the appointment of the Governor is to be tendered by the Premier.

As a consequence of the enactment of the Australia Acts the Constitution (Amendment) Act 1987 was passed by the New South Wales Parliament and was assented to on 3 June 1987. It amended the Constitution Act 1902 to make provision for, inter alia, the Governor. The Governor's role and responsibilities prior to the Australia Acts and the Constitution (Amendment) Act 1987 are described on page 22 of the 1986 Year Book.

The Constitution Act provides that there shall continue to be a Governor of the State, a Lieutenant-Governor of the State and an Administrator of the State and makes provision for the assumption of the administration of the Government by the Lieutenant-Governor or Administrator. It is provided that the appointment of a person to the office of Governor shall be during Her Majesty's pleasure by Commission under Her Majesty's Sign Manual and the Public Seal of the State.

The Letters Patent dated 29 October 1900, as amended, relating to the Office of the Governor of the State and all Instructions to the Governor issued by Her Majesty ceased to have effect as a consequence of the amendments to the Constitution Act.

The Constitution Act makes provision for the Executive Council and provides that there shall continue to be an Executive Council to advise the Governor in the government of the State. The amendments to the Constitution Act do not, however, affect any law or established constitutional convention relating to the exercise or performance of the functions of the Governor otherwise than on the advice of the Executive Council. Thus such reserve powers as the Governor possesses are preserved.

In addition to exercising Her Majesty's powers and functions in respect of the State, the Governor is the titular head of Government of New South Wales and performs the formal and ceremonial functions which attach to the Crown.

His more important constitutional duties are to appoint the Executive Council and to preside at its meetings; to appoint the Premier and other Ministers of the Crown for the State from among the members of the Executive Council; to summon, prorogue, and dissolve the Legislature; to assent to Bills passed by the Legislature, to keep and use the Public Seal of the State, to remove and suspend Officers of State and exercise the Queen's prerogative of mercy.

So far as assent to Bills is concerned, the Constitution Act provides that, except as otherwise provided, every Bill shall be presented to the Governor for Her Majesty's assent after its passage through the Legislative Council and the Legislative Assembly and shall become an Act of the Legislature when it is assented to by the Governor in the name and on behalf of Her Majesty. As a consequence of the Australia Acts, no law or instrument may require the Governor to withhold assent from any Bill that has been passed in such manner and form as may from time to time be required by a law made by the Parliament of the State or require the reservation of any Bill for the signification of Her Majesty's pleasure thereon.

A wide variety of powers are conferred upon the Governor by Acts of the Parliament. The power to make regulations to give effect to Acts is one such power. While the Courts will not review the exercise by the Governor of his prerogative powers, they have demonstrated a preparedness to review the exercise of his statutory powers.

Some Acts which establish a University appoint the Governor as the Visitor to the University and as such he has jurisdiction to settle disputes within the University.

The present Governor of New South Wales, His Excellency Air Marshal Sir James Rowland A.C., K.B.E., D.F.C., A.F.C., was sworn into office on 20 January 1981.

THE CABINET AND EXECUTIVE GOVERNMENT

Executive government in New South Wales is based on the British system, which is generally known as "Cabinet" government, the essential condition being that Cabinet is responsible to Parliament. Its main principles are that the head of the State (the Governor, representing Her Majesty the Queen) should perform governmental acts on the advice of his Ministers; that he should choose his principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the Lower House (in New South Wales, the Legislative Assembly); that the Ministry so chosen should be collectively responsible to that House for the government of the State; and that the Ministry should resign if it ceases to command a majority there.

Formally, the executive power is vested in the Governor, who is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained later. The whole policy of a Ministry is, in practice, determined by the Ministers of State, meeting, without the Governor, under the chairmanship of the Premier. This group of Ministers is known as the Cabinet.

The Cabinet system operates by means, chiefly, of constitutional conventions, customs, understandings, and of institutions that do not form part of the legal structure of the government at all.

The Executive Council

All important actions of State, except in the limited spheres where the Governor possesses discretionary powers, are performed or sanctioned by the Governor-in-Council.

The Council is established under the Constitution Act. Prior to the Constitution (Amendment) Act 1987 it was established by virtue of Letters Patent constituting the office of Governor. Members of the Executive Council are appointed by the Governor. By convention, its members are invariably members of the Ministry formed by the leader of the dominant party in the Legislative Assembly. When a member resigns from the Ministry, he also resigns from the Executive Council.

The Governor presides at meetings of the Executive Council, or in the absence of the Governor, the Vice-President of the Council or the next most senior member of the Council. The quorum for a meeting is two.

The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Clerk. At Executive Council meetings, the decisions of the Cabinet are (where necessary) given legal form, appointments are made, resignations are accepted, proclamations are issued, and regulations and the like approved.

The Ministry or Cabinet

The Constitution Act provides for the appointment of the Premier and other Ministers of the Crown by the Governor from among the members of the Executive Council. The Act limits the number of Ministers of the Crown to twenty. The Ministry or Cabinet, consists by custom, of those members of Parliament chosen to administer departments of State and to perform other executive functions. The Ministry is answerable to Parliament for its administration, and it continues in office only so long as it commands the confidence of the Legislative Assembly, from which nearly most of its members are chosen. An adverse vote in the Legislative Council does not affect the life of the Ministry. The constitutional practices of the Imperial Parliament with respect to the appointment and resignation of ministers have been adopted tacitly. Cabinet acts under direction of the Premier, who supervises the general legislative and administrative policy and makes all communications to the Governor.

Meetings of Cabinet are held to deliberate upon the general policy of the administration, the more important business matters of the State, and the legislative measures to be introduced to Parliament, and to manage the financial business of the State. Its decisions are carried into effect by the Executive Council or by individual Ministers, as each case requires. Many administrative matters are determined by ministerial heads of departments without reference to the Executive Council, every Minister possessing considerable discretionary powers in the ordinary affairs of their department.

Cabinet standing committees have been established to meet when required to consider, and report back to Cabinet on, matters referred to them by Cabinet.

The Cabinet does not form part of the legal mechanism of government. Its meetings are private, no official record of proceedings is kept, and the decisions have, in themselves, no legal effect. Since the Cabinet includes the leaders of the party or parties commanding a majority in the Lower House, it substantially controls, in ordinary circumstances, not only the general legislative program of Parliament, but the whole course of parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the State. Even in summoning, proroguing, or dissolving Parliament, the Governor is usually guided by the advice tendered him by the Cabinet though legally the discretion is vested in the Governor himself.

The various Ministries which have held office since January 1973, together with the term of each, are shown below. The life of a Ministry does not necessarily correspond with the life of a Parliament. Since 1856, when the present system was inaugurated, there have been 79 Ministries but only 48 Parliaments.

Ministries of New South Wales Since 1973

Number	*Name of Premier and Party*	*From —*	*To —*
66	Askin (Liberal/Country Party)	17 Jan. 1973	3 Dec. 1973
67	Askin (Liberal/Country Party)	3 Dec. 1973	3 Jan. 1975
68	Lewis (Liberal/Country Party)	3 Jan. 1975	17 Dec. 1975
69	Lewis (Liberal/Country Party)	17 Dec. 1975	23 Jan. 1976
70	Willis (Liberal/Country Party)	23 Jan. 1976	14 May 1976
71	Wran (Labor)	14 May 1976	19 Oct. 1978
72	Wran (Labor)	19 Oct. 1978	29 Feb. 1980
73	Wran (Labor)	29 Feb. 1980	2 Oct. 1981
74	Wran (Labor)	2 Oct. 1981	1 Feb. 1983
75	Wran (Labor)	1 Feb. 1983	10 Feb. 1984
76	Wran (Labor)	10 Feb. 1984	5 Apr. 1984
77	Wran (Labor)	5 Apr. 1984	6 Feb. 1986
78	Wran (Labor)	6 Feb. 1986	4 July 1986
79	Unsworth (Labor)	4 July 1986	In Office

The Ministry in office when this Year Book went to press is contained in an appendix to this volume.

Salaries of Ministers

The salaries and principal allowances payable to all members of Parliament are determined by the Parliamentary Remuneration Tribunal under the Parliamentary Remuneration Tribunal Act 1975. The Tribunal generally consists of a retired judge or person retired from a position having similar status. The Parliamentary Remuneration Tribunal (Amendment) Act 1984 requires the Tribunal to make determinations of parliamentary remuneration as soon as practicable after the Industrial Commission hands down decisions in State Wage Cases and suspends its power to make annual determinations. It also requires the Tribunal, in making its determination, to have regard to the amount determined by the Industrial Commission by which rates of wages payable under awards are to be varied and to adopt the principles of wage fixation for the time being adopted by that Commission as a general ruling or declaration of principle. Allowances are also considered by the Tribunal.

The *annual salaries* of Ministers are shown in the following table.

Ministers of New South Wales State Parliament: Salaries and Allowances, from 20 March 1987
($ per annum)

Ministers of the Crown	*Base salary*	*Salary of office*	*Expense allowance*	*Electoral allowance (a)*	*Special expense allowance (b)*
Premier	43,620	45,468	25,488	15,343–27,221	9,706
Leader of Government Members in Legislative Council	43,620	37,535	11,908		
Deputy Premier	43,620	36,637	12,743		
Deputy Leader of Government Members in Legislative Council	43,620	33,705	11,908		
Other Ministers	43,620	32,188	11,908		

(a) Paid to ministers who are members of the Legislative Assembly according to the location of their electorate. Ministers who are members of the Legislative Council receive $15,343. *(b)* Paid to ministers who represent or reside in (in the case of the Legislative Assembly), or reside in (in the case of the Legislative Council), outlying electorates.

Ministers' entitlements, which include certain transport, postage and telephone allowances, are paid according to their responsibilities and the location of their electorate and their home address.

THE STATE LEGISLATURE

The State Legislature consists of the Sovereign and the two Houses of Parliament — the Legislative Council (the Upper House) and the Legislative Assembly (the Lower House). State laws (except in the event of disagreement between the Houses — see below) are enacted "by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and the Legislative Assembly in Parliament assembled".

All bills for appropriating revenue or imposing taxation must originate in the Legislative Assembly but other bills may originate in either House. The responsibility of the Ministry for financial measures is secured by a provision that the Legislative Assembly may not appropriate any part of the Consolidated Fund or of any other tax or impost for any purpose, unless it has first been recommended by a message of the Governor to the Assembly during the current session. Following an amendment to the Constitution Act in 1987, the message is not required under the Act or under the standing rules and orders of the Legislative Assembly for a bill introduced by, or a vote or resolution proposed by a Minister of the Crown.

In the case of disagreement between the Legislative Assembly and the Legislative Council in respect of appropriation bills, the Constitution Act (as amended in 1933) provides the traditional right of the Legislative Assembly to control the purse. Bills relating to appropriations for annual services may be presented for Royal Assent, with or without any amendment suggested by the Council, and may become Acts notwithstanding the failure of the Upper House to agree to them; but any provision in any such Act dealing with any matter other than the appropriation is of no effect.

To overcome disagreements in regard to bills (other than such appropriation bills) passed by the Legislative Assembly, the Constitution Act provides that the Legislative Assembly may pass the bill again after an interval of three months. If the Legislative Council rejects it again (or makes amendments unacceptable to the Legislative Assembly) and if a conference of managers appointed by the two Houses and a joint sitting of the two Houses fail to attain agreement, the Legislative Assembly may direct that the bill be submitted to a referendum of the electors. If approved by a majority of electors, the bill becomes law.

Every member of Parliament must take an oath or make an affirmation of allegiance and must declare their pecuniary and other interests. The disclosures of pecuniary and other interests are open to public inspection.

It is a function of the Governor to summon, prorogue and dissolve Parliament. Both Houses must meet at least once in every year, so that a period of twelve months may not elapse between sessions. The continuity of Parliament is ensured by law. The Parliamentary Electorates and Elections Act 1912, provides that writs for the election of new members must be issued within four days after the publication of the proclamation dissolving the Assembly or after the Assembly has been allowed to expire by effluxion of time, that they must be returned within sixty days after issue (unless otherwise directed by the Governor), and that Parliament shall meet within seven days of the return of writs. The duration of Parliament was limited to three years in 1874, and an amendment of the Constitution Act in 1950 provided that a Legislative Assembly could not be extended beyond three years without approval of the electors at a referendum. Following a referendum in 1981, the limit was extended to four years commencing with the 48th Parliament.

The circumstances in which the Governor may grant a dissolution of Parliament are not clearly defined. Strictly speaking, only the Legislative Assembly is dissolved, but Parliament is ended thereby, because both Houses are necessary to constitute a Parliament.

The number and duration of State Parliaments since 1965 are shown in the following table.

Parliaments of New South Wales since 1965

Number of parliament	*Return of writs*	*Date of opening*	*Date of dissolution*	*Duration*			*Number of sessions*
				years	*months*	*days*	
41	28 May 1965	26 May 1965	23 Jan. 1968	*2*	*7*	*26*	4
42	22 Mar. 1968	26 Mar. 1968	13 Jan. 1971	*2*	*9*	*22*	3
43	16 Mar. 1971	16 Mar. 1971	19 Oct. 1973	*2*	*7*	*4*	4
44	7 Dec. 1973	4 Dec. 1973	2 Apr. 1976	*2*	*3*	*27*	3
45	21 May 1976	25 May 1976	12 Sept. 1978	*2*	*3*	*19*	3
46	3 Nov. 1978	7 Nov. 1978	28 Aug. 1981	*2*	*9*	*25*	4
47	23 Oct. 1981	28 Oct. 1981	5 Mar. 1984	*2*	*4*	*11*	4
48	30 Apr. 1984	1 May 1984	In office				

The Legislative Council and Legislative Assembly are empowered by the Constitution Act to prepare standing rules and orders regulating their conduct and mode of business generally. These standing orders require the approval of the Governor.

With the consent of the Legislative Council, any member of the Legislative Assembly who is an Executive Councillor may sit in the Upper House for the purpose of explaining the provisions of bills relating to or connected with the department administered by them. They may take part in debate and discussion, but may not vote in the Legislative Council.

The party system has become a dominating influence on parliamentary government in New South Wales. A candidate is more likely to be elected to the Legislative Assembly or the Legislative Council if he is endorsed by one of the major political parties.

Party representation in both Houses is given in a following subsection. The most significant feature of the party system is that the policies to be followed in Parliament are determined in advance at regular meetings of party members of Parliament. These meetings have no formal status in the parliamentary system, but it has become the custom for party members to vote or act in Parliament in accordance with the majority decisions made at these meetings.

The Legislative Council

The Legislative Council consists of 45 members each elected for a term of office equivalent to three terms of the Legislative Assembly. The term of office of fifteen members expires at each general election, at which fifteen members are elected.

The Council was reconstituted following a referendum in 1978 at which a majority of votes was recorded in favour "of a bill for an Act to provide for the election of the Legislative Council directly by the people". The reconstitution was effected in terms of the Constitution and Parliamentary Electorates and Elections (Amendment) Act 1978 which amended the Constitution Act and the Parliamentary Electorates and Election Act. A more detailed account of the reconstitution is given in Year Book No. 69.

With certain exceptions (for example, members of the Legislative Assembly and holders of certain offices of profit under the Crown), any person qualified to vote at a periodic Council election is qualified to be nominated as a candidate at that election. Two or more candidates may arrange to have their names included in a group in the ballot-paper for the election and to have their names shown in a specified order within the group.

A member's seat becomes vacant by death, resignation, absence without leave for a Session, taking allegiance to a foreign power, bankruptcy, conviction for a criminal offence, or (with certain exceptions) the acceptance of an office of profit under the Crown.

Casual vacancies in the Council are filled:

(a) by the person (if any) who, at the election which returned the member whose seat is vacant, was next in order in the group of candidates which includes that member; or

(b) if there is no such person, by a person who is elected at a joint sitting of both Houses of Parliament and who is, where applicable, a member of the same political party as the member whose seat has become vacant.

Members elected to fill casual vacancies serve only the unexpired period of the term of the vacant seat.

The executive officers of the Council are the President and the Chairman of Committees, who are chosen by and from the members of the Council.

The salaries and principal allowances of members of Parliament are determined by the Parliamentary Remuneration Tribunal (see above). The *annual salaries* (and the *expense allowances*) payable to members of the Legislative Council (other than Ministers) are shown in the following table.

Legislative Council: Member's Salaries and Allowances, from 20 March 1987 ($ per annum)

Office holder	*Base salary*	*Salary of office*	*Expense allowance*	*Electoral allowance (a)*	*Special expense allowance (b)*
President	43,620	27,580	11,908	15,343	6,454–9,706
Deputy Leader of the Government Members (when not a minister)	43,620	9,454	6,545		
Leader of Opposition Members	43,620	9,454	6,545		
Chairman of Committees	43,620	9,454	6,545		
Deputy Leader of Opposition Members (when leader of a party)	43,620	5,319	6,545		
Deputy Leader of Opposition Member (when not the leader of a party)	43,620	5,319	2,625		
Government and Opposition Whips	43,620	5,319	2,625		
Other members	43,620	—	—		

(a) Paid to members of the Council who are not ministers and reside in outlying electorates and who use overnight accommodation facilities away from Parliament House.

Members' allowances, which include certain transport, postage and telephone allowances, are paid according to their responsibilities and the location of their electorate and home address.

Elections

At the elections held on 24 March 1984, 15 seats were contested and, of the 3,330,350 electors enrolled 3,081,223 (92 per cent) voted. The number of informal votes recorded was 205,275 (7 per cent of total votes recorded).

Political party membership of the Legislative Council, at the return of writs of recent elections, is shown in the following table.

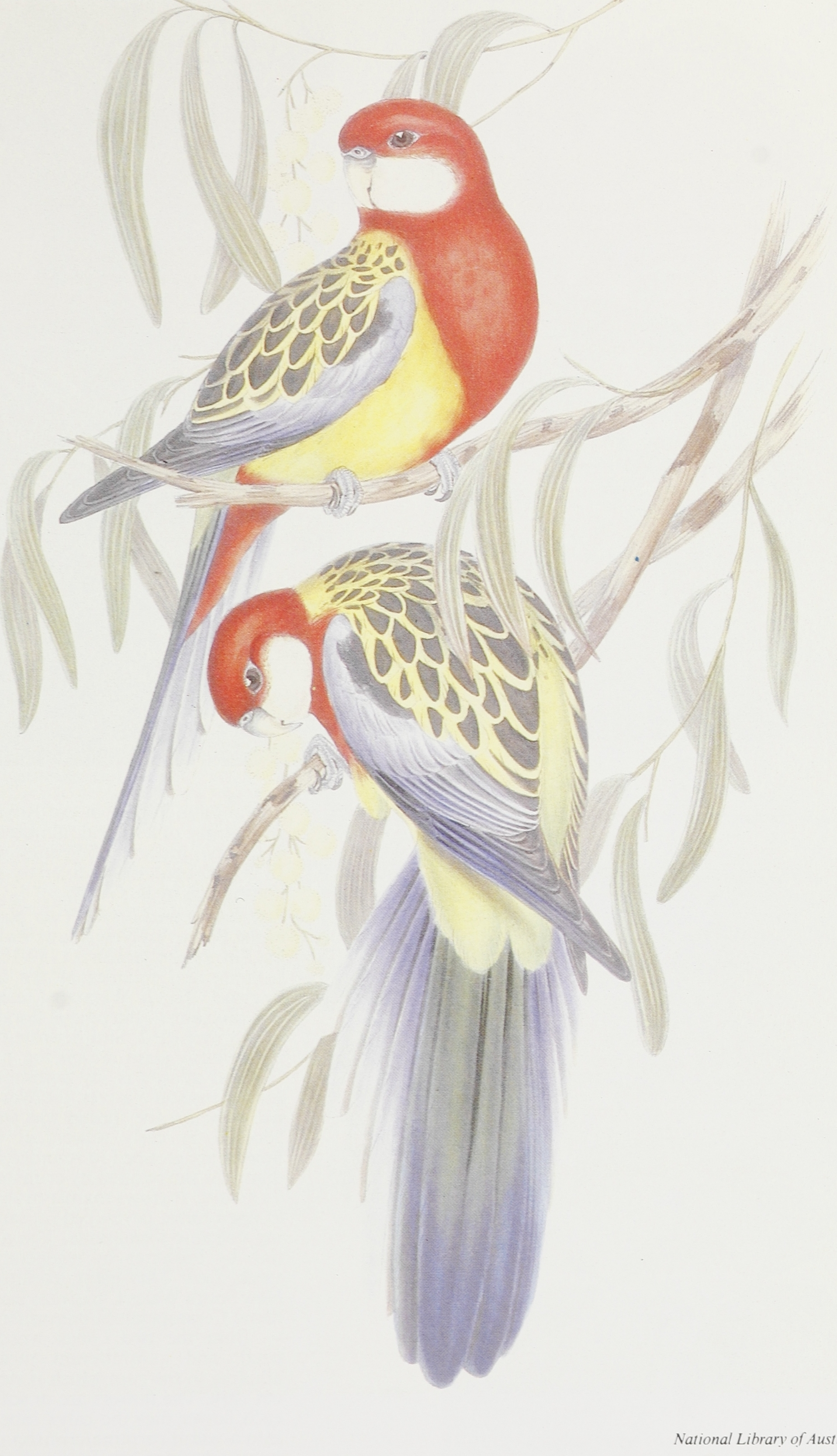
Legislative Council: Membership by Party Affiliation

	Year of election		
Political party	*1978*	*1981*	*1984*
Australian Democrats	—	1	1
Australian Labor Party	23	24	24
Independents	—	1	2
Liberal Party of Australia	14	12	11
National Party *(a)*	6	6	7
Total all parties	**43**	**44**	**45**

(a) Prior to 1982, the "National Country Party".

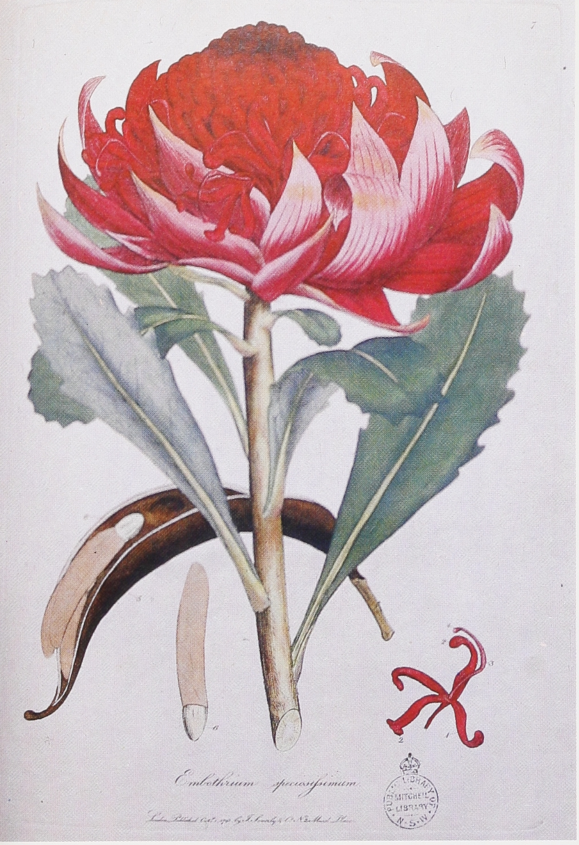
The Legislative Assembly

The Legislative Assembly currently consists of 99 members elected on a system of universal adult suffrage. The number of members is to be increased to 109 following an amendment to the Constitution Act in 1986. The increased number of members will be elected for the



National Library of Australia

Rose Hill Parakeet (Platycercus Eximius). Lithograph, hand coloured by H.C. Richter, from John Gould's Birds of Australia 1848. John Gould, a skilled taxidermist, was curator of the Museum of the Zoological Society of London. Together with his wife Elizabeth, an experienced artist and lithographer, he commenced work on the publication of a series of books on birds. They had produced twenty plates of the Birds of Australia when they found it necessary to visit Australia to collect material. He observed, collected and preserved specimens and made sketches of these specimens. Elizabeth drew some of the plants of the Colony but did not live to lithograph the plates.



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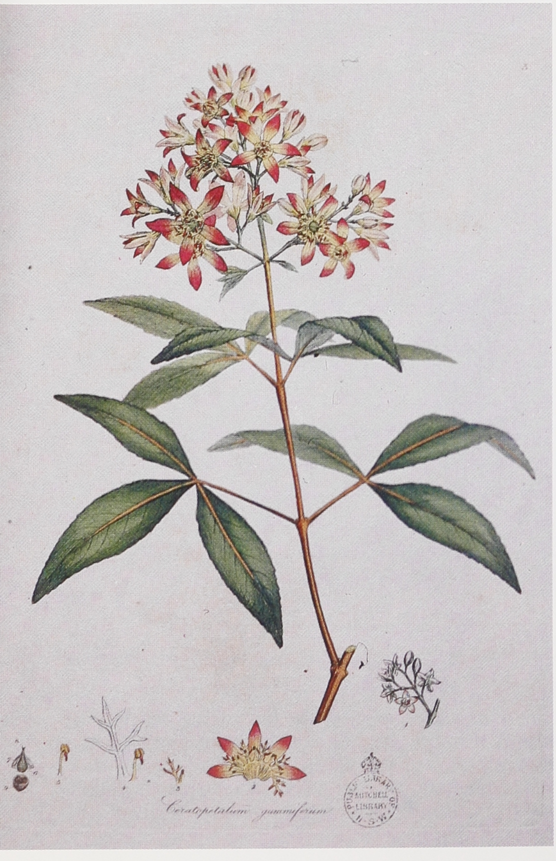
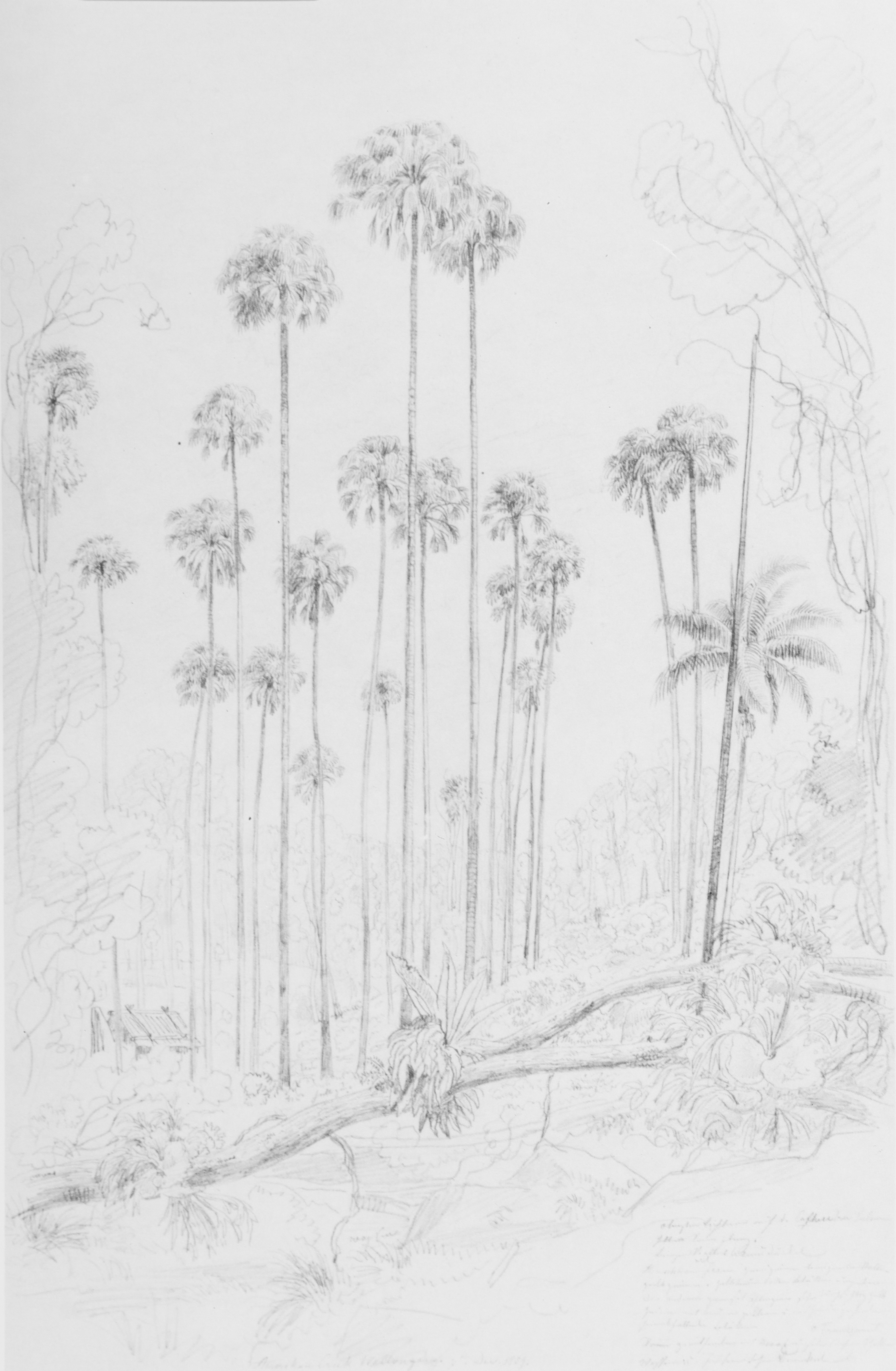
National Parks and Wildlife Service of New South Wales

Above: Palm Jungle in the Royal National Park is an example of a littoral rainforest. The Park, on the southern outskirts of Sydney, was proclaimed in 1879 and contains a diversity of flora and fauna. Photograph by K. Gillett.

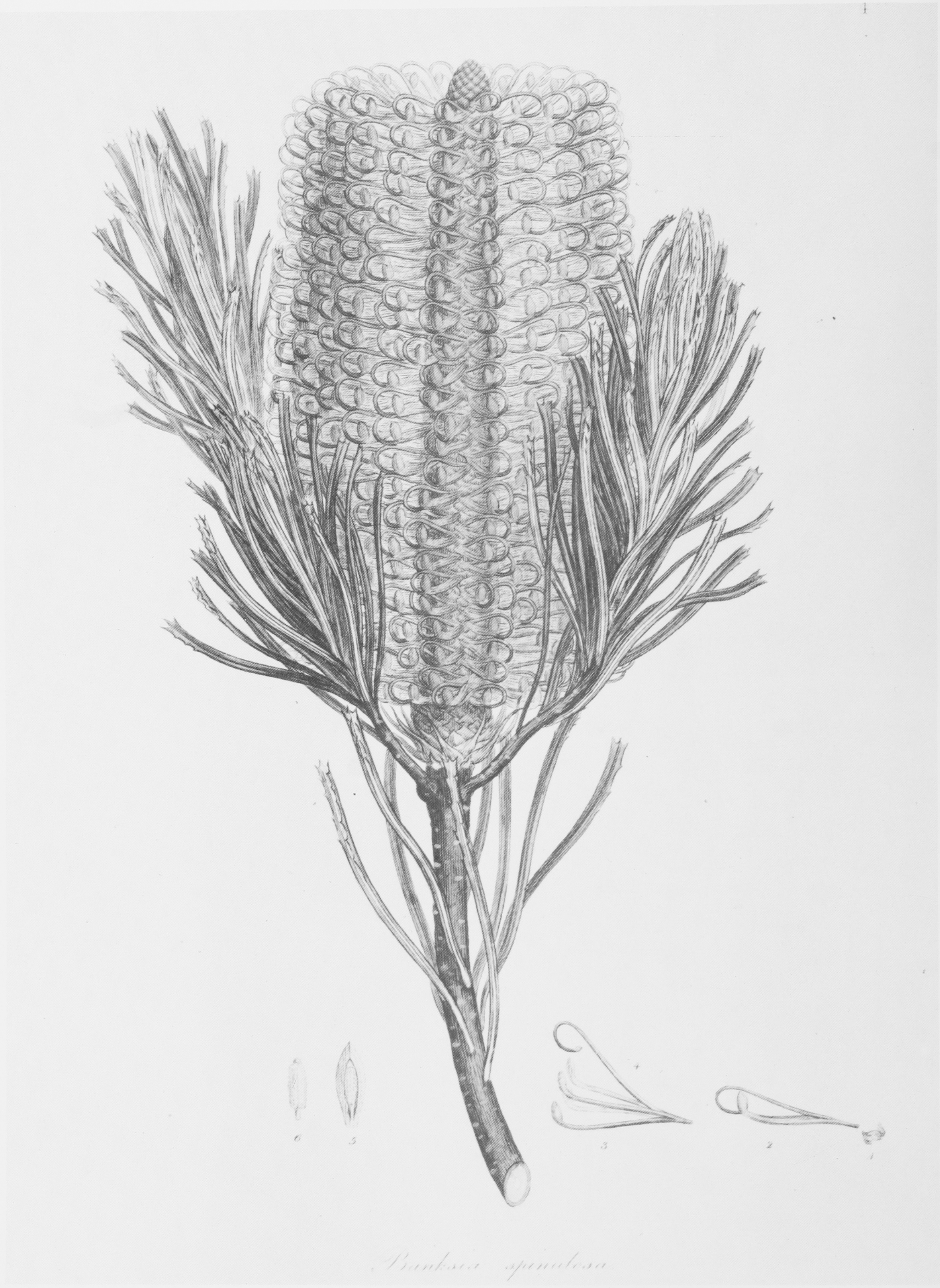
Left, above and below: Two plates from Specimen of the Botany of New South Wales, Volume 1 1793, by Sir James Smith (1759-1828). Smith was a botanist and founder of the Linnean Society in England. *Above:* Waratah (Telopea Speciosissima) was proclaimed the official floral emblem of N.S.W. in October 1962. Smith wrote in 1793: "The most magnificent plant which the prolific soil of New Holland affords is, by common consent, both of Europeans and Natives, the Waratah". The Aboriginal name for the species was waratah and this was adopted by early settlers at Port Jackson. The flowers are grouped in rounded heads 7 to 10 cm in diameter surrounded by crimson bracts, about 5 to 7 cm long. It grows mainly in the shrub understorey in open forest developed on sandstone and adjoining volcanic formations. The plants resist destruction by bushfires by regenerating from the rootstock. *Left:* This plant, commonly known as the New South Wales Christmas Bush, has the scientific name Ceratopetalum gummiferum. Ceratopetalum — from the two Greek words meaning horned petal, and gummiferum meaning gum-bearing, alluding to the gum which is richly exuded from its cut bark. The flowers are in soft cream clusters. As each flower dies the calyx lobe enlarges and turns into a warm carmine/crimson colour and becomes papery, looking like four or five petals. This occurs each December.





Dixson Galleries, State Library of New South Wales

Amerikan Creek, Wollongong. Pencil sketch by Eugen Von Guerard, 1859. The rain forest flora includes cabbage tree palms (Livistona australis), bird's nest ferns (Asplenium nidus) and staghorns (Platycerium superbum). The area is now known as Mt. Kembla.



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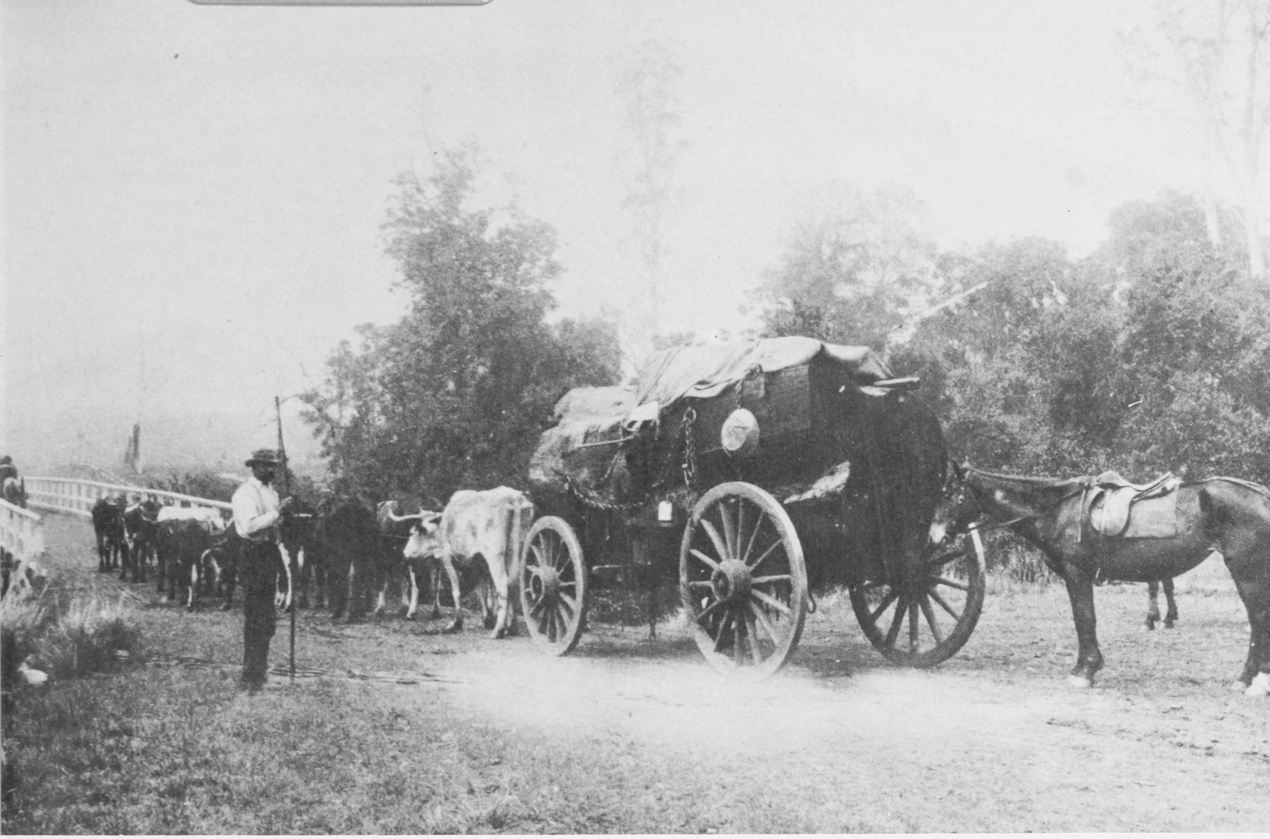
Banksia Spinulosa. An engraving, from *Specimen of the Botany of New Holland*, by Sir James Smith, 1793. *Banksia*, in honour of Sir Joseph Banks the botanist who accompanied Captain Cook on the Endeavour on his journey to Australia, while *spinulosa* means with small spines. It is commonly known as the Hairpin Banksia. The flowers are variations of brown, red-orange and gold with flower spikes ranging from 10 to 20 cm in length. Dark woody seed cones follow.



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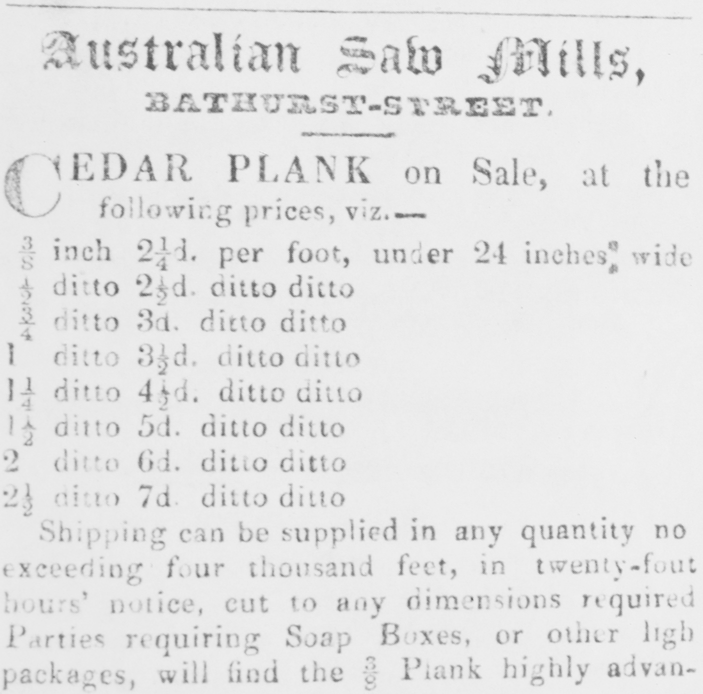


Australian Saw Mills,

BATHURST-STREET.

CEDAR PLANK on Sale, at the following prices, viz.—

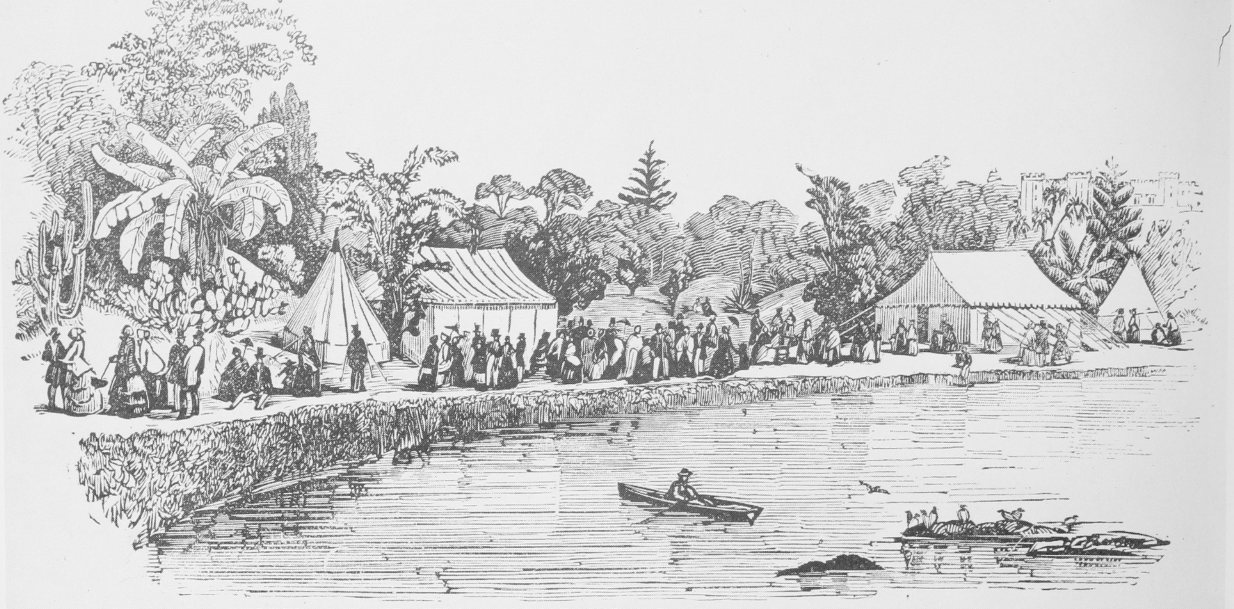
⅜ inch 2¼d. per foot, under 24 inches wide
½ ditto 2½d. ditto ditto
¾ ditto 3d. ditto ditto
1 ditto 3½d. ditto ditto
1¼ ditto 4½d. ditto ditto
1½ ditto 5d. ditto ditto
2 ditto 6d. ditto ditto
2½ ditto 7d. ditto ditto

Shipping can be supplied in any quantity no exceeding four thousand feet, in twenty-fout hours' notice, cut to any dimensions required Parties requiring Soap Boxes, or other ligh packages, will find the ⅜ Plank highly advantageous.

W. G. GARD & CO.

ABERDEEN STORE,

Above: A cedar log from the forests of the north-coast area on the Richmond River, near Maclean's Ridge. Photograph by Kerry and Co. Cedar trees were found in coastal regions of N.S.W. from Ulladulla to the Queensland border. T.A. Coghlan in the Wealth and Progress of New South Wales, 1886-87, described the red cedar (Cedrela toona) as "a magnificent timber tree, often attaining a height of 150 feet, with a girth of over 30 feet. Its timber has great value, being light, easily wrought, durable, splendidly grained, and well adapted for furniture and cabinet-making". Although regulations were issued in 1878 to restrict cedar getting operations, large areas of cedar had already been exploited and today no commercial stands remain. *Left:* An advertisement for cedar plank contained in the Sydney Herald, 31 October 1838, illustrates its wanton misuse.



EXHIBITION OF THE AUSTRALIAN HORTICULTURAL AND BOTANICAL SOCIETY, SYDNEY.

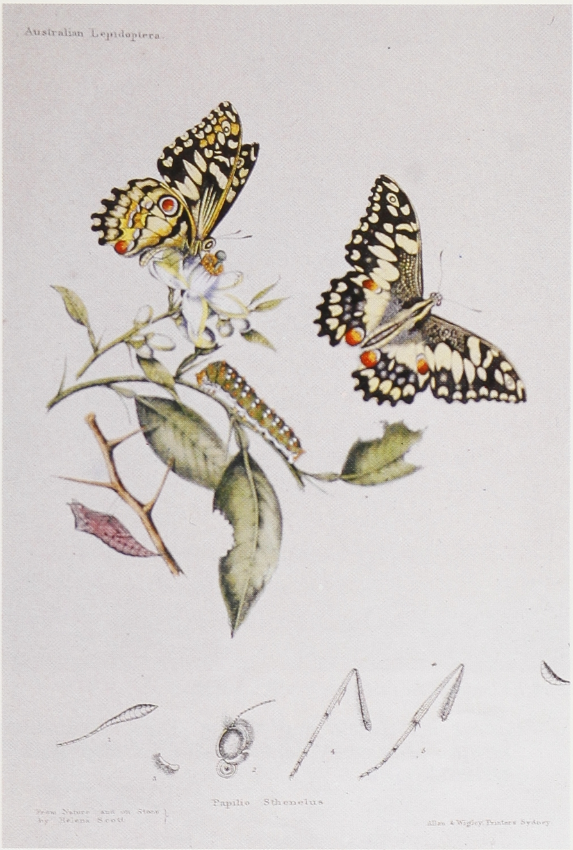
N.S.W. Government Printer

Exhibition of the Australian Horticultural and Botanical Society, Sydney. The location of the Royal Botanic Gardens, Sydney, on the shores of Farm Cove, is on the site set aside by Governor Phillip for the Colony's first farm. It is generally considered that the gardens commenced when Mrs Macquarie's Road was completed in 1816. Today the gardens contain the National Herbarium of New South Wales which maintains the State's major botanical research and reference specimen collection and conducts surveys and research into the biogeography and ecology of Australian flora. The Gardens display a wide diversity of plants of horticultural and botanical interest.

Newcastle Morning Herald

More than 400 volunteers working with National Parks and Wildlife Service staff managed to save 38 out of 66 "false killer" whales which beached themselves at Crowdy Head on the mid north coast in June 1985. In the three-day operation, the whales were covered with hessian and kept wet by bucket brigades: 21 were transported by truck from the ocean beach and put into Crowdy Bay harbour. It was the largest and most successful whale rescue so far in N.S.W.

Promotion Australia


Australian Lepidoptera
1
2
3
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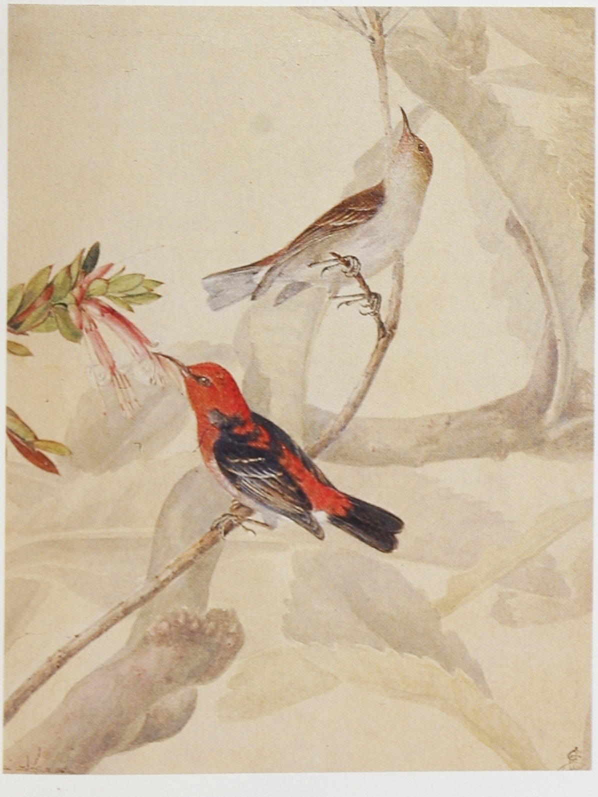
Papilio Sthenelus
From Nature and on Stone by Helena Scott
Allan & Wigley Printers Sydney

Mitchell Library, State Library of New South Wales

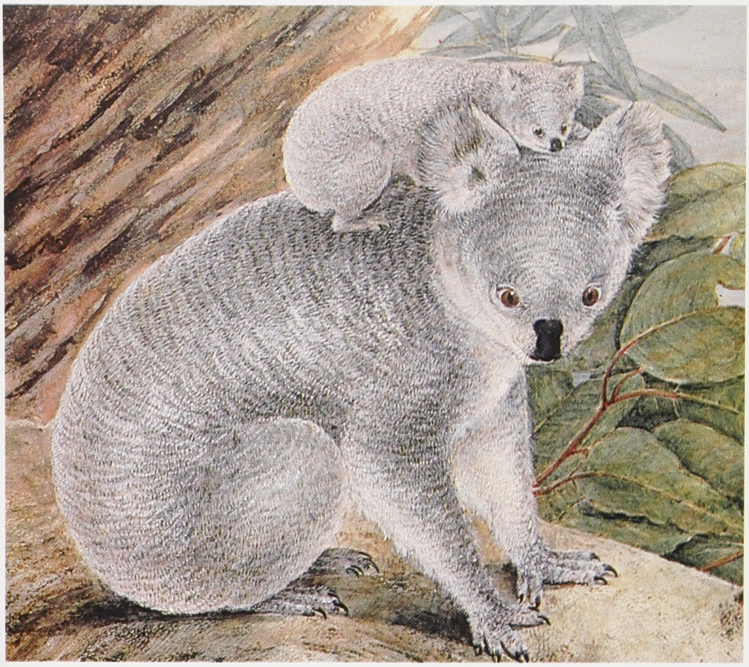
Mitchell Library, State Library of New South Wales



Above left: Pyramid Glasshouse, Royal Botanic Gardens, Sydney, 1983

Above: Australian Lepidoptera and their Transformation. Sydney, 1893. by A.W. Scott. Scott made observations in Australia between 1838 and 1864 and published many articles on insects, particularly butterflies. His daughter, Helena, engraved many of his drawings. The butterfly shown was found by Scott in considerable numbers on the Hunter River, feeding on blue lucerne and clover.

Left: Scarlet and Black Honeysucker, 1810. Watercolour by J.W. Lewin. Naturalist and artist, John Lewin arrived in N.S.W. in 1800. In pursuit of his natural history interests he made several expeditions into the interior of the colony. His book, Birds of New South Wales, containing engraved and coloured plates was published in Sydney by G. Howe in 1813.



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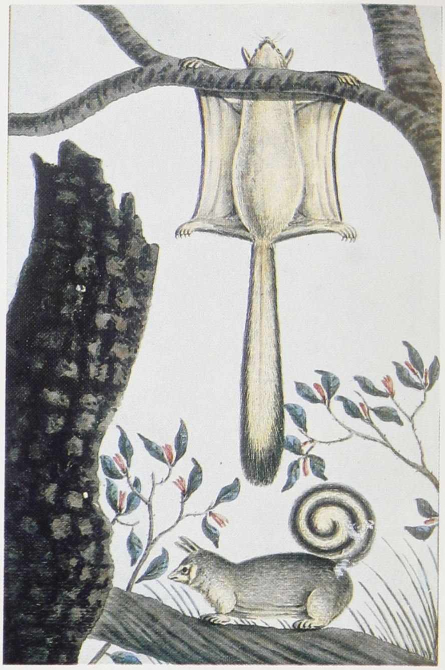
Above left: Koala and Young, 1803. Watercolour by J.W. Lewin. This study of the koala, painted from life, is the earliest known.



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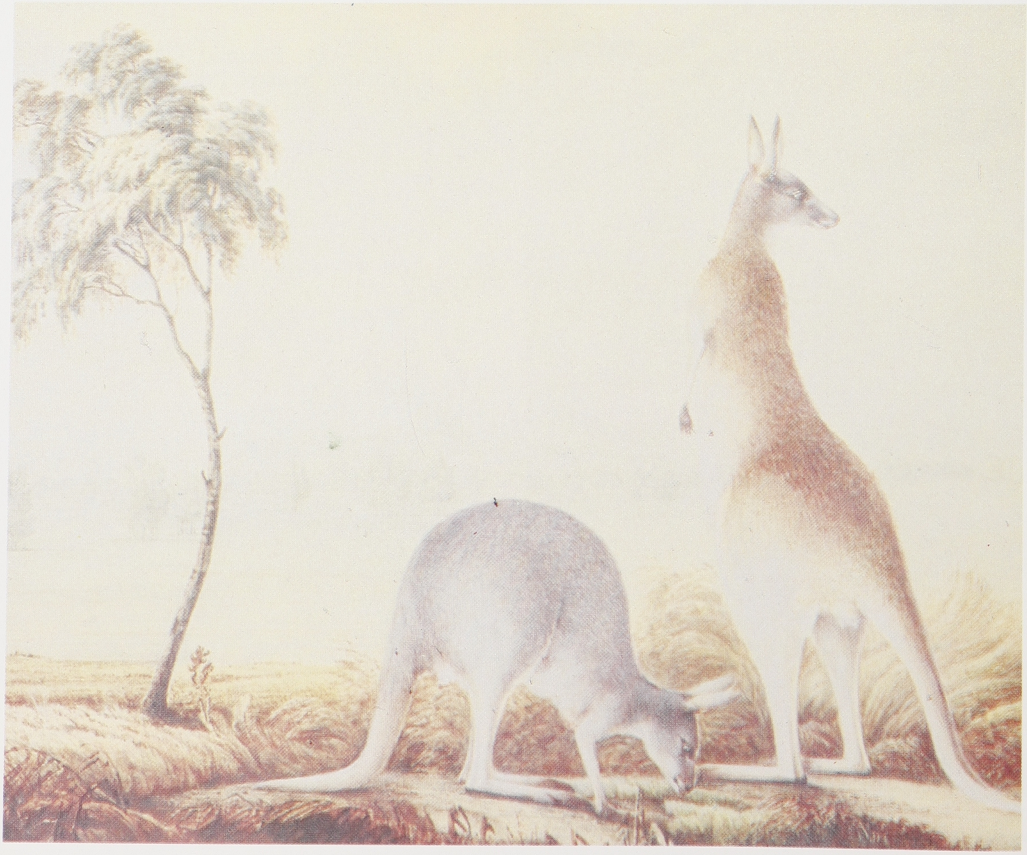
Flying Squirrel, 1813. Watercolour by T.R. Browne.

Below: Kangaroos in a landscape. Probably 1819. An oil, possibly by J.W. Lewin.

National Library of Australia



49th Parliament. Members of the 48th Parliament, which was elected in March 1984, and subsequent parliaments will serve a maximum period of 4 years. The 7th to 47th Parliaments were elected for a maximum of 3 years, with a 5 year maximum prior to that. Any person who is qualified to vote at a State election is eligible to be elected to the Assembly. A person who is otherwise eligible for election is disqualified if he is a member of the Commonwealth Parliament or of the Legislative Council, or has a pecuniary interest (other than as a member of a registered company) in any contract with the State public service, or holds a non-political office of profit under the Crown (other than in the defence forces); but an officer of the State public service may be elected on condition that he resigns his position in the service. The seat of a member becomes vacant in circumstances similar to those stated above for Legislative Councillors, and is filled at a by-election.

A Speaker presides over the House, and his election is the first business when the House meets after election. He presides over debate, maintains order, represents the House officially, communicates its wishes and resolutions, defends its privileges when necessary, and determines its procedure. There is also a Chairman of Committees elected by the House at the beginning of each Parliament; he presides over the deliberations of the House in Committee of the Whole and acts as Deputy Speaker.

The salaries and principal allowances of members of Parliament are determined by the Parliamentary Remuneration Tribunal (see above). The *annual salaries* (and the *expense allowances*) payable to members of the Legislative Assembly (other than Ministers) are shown in the following table.

Legislative Assembly: Member's Salaries and Allowances, from 20 March 1987 ($ per annum)

Office holder	*Base salary*	*Salary of office*	*Expense allowance*	*Electoral allowance (a)*	*Special expense allowance (b)*
Speaker	43,620	27,580	11,908	15,343–27,221	6,454–9,706
Leader of Opposition Members	43,620	27,580	11,908		
Chairman of Committees	43,620	9,454	6,545		
Deputy Leader of Opposition Members	43,620	9,454	6,545		
Leader of a recognised political party (c)	43,620	9,454	6,545		
Government and Opposition Whips	43,620	6,258	3,090		
Chairman of the Public Accounts Committee	43,620	3,186	3,090		
Other members	43,620	—	—		

(a) Paid to members of the Legislative Assembly according to the location of their electorate. *(b)* Paid to members who represent outlying electorates and use overnight accommodation facilities away from Parliament House. *(c)* With ten or more members and when not a Leader or Deputy Leader of Opposition Members.

Members' allowances, which include certain transport, postage and telephone allowances, are paid according to their responsibilities and the location of their electorate and their home address.

Elections

At the elections held on 24 March 1984 all 99 electorates for the Legislative Assembly were contested. Of the 3,330,350 electors enrolled, 3,081,223 (92.5 per cent) voted. The number of informal votes recorded was 74,315 (2 per cent of total votes recorded).

The membership of the Legislative Assembly by political party following the return of writs of recent elections is shown in the following table.

Legislative Assembly: Membership by Party Affiliation

	Year of election					
Political party	*1971*	*1973*	*1976*	*1978*	*1981*	*1984*
Australian Labor Party	45	44	50	63	69	58
Independents	2	2	1	1	2	4
Liberal Party of Australia	32	34	30	18	14	22
National Party *(a)*	17	18	18	17	14	15
Democratic Labor Party	—	1	—	—	—	—
Total all parties	**96**	**99**	**99**	**99**	**99**	**99**

(a) Prior to 1982, the "National Country Party".

The number and percentage of first preference votes achieved by political parties at the last two general elections are shown in the following table. Preference votes decided 7 electorates at the 1981 election and 15 electorates in the 1984 election.

Legislative Assembly: Votes for Political Parties

	1981 Election		*1984 Election*	
Political party	*Votes*	*Per cent*	*Votes*	*Per cent*
Australian Democrats	68,252	2	93,750	3
Australian Labor Party	1,564,622	56	1,450,282	48
Independents	82,973	3	153,506	5
Liberal Party of Australia	770,889	27	1,012,956	34
National Party	314,841	11	288,419	10
Other	6,150	—	7,995	—
Total all parties	**2,807,727**	**100**	**3,006,908**	**100**

State Parliamentary Committees

A number of committees consisting of Members of Parliament, representing all political parties, are appointed to deal with special matters connected with the business of the State and of either House. From time to time, select committees are chosen, from one or both Houses, to inquire into and report on specific matters for the information of Parliament and the public. The standing orders of both Houses provide for the appointment of Standing Committees of either or both Houses existing for the life of a Parliament to consider general references on particular areas of state administration. Each House elects sessional committees to deal with its standing orders and procedures; the printing of Parliamentary Papers; to supervise the library; and internal House matters. The Legislative Council has a committee which deals with subordinate legislation and the Legislative Assembly has a Public Accounts Committee which is described below.

Public Accounts Committee

The Public Accounts Committee consists of five members, elected by the Legislative Assembly from among its members, to serve for the duration of the Parliament under the provisions of the Public Finance and Audit Act 1983. Ministers of the Crown and Parliamentary Secretaries are not eligible for appointment to the Committee.

The duties of the Committee are to examine the public accounts and the accounts of authorities that have been audited by the Auditor-General or laid before the House by a Minister, and the Auditor-General's reports on those accounts; to report to the House on any matters in those accounts or reports and any improvements that could be made to the accounting system or the control of moneys; to inquire and report on any question in connection with the accounts referred to it by the Legislative Assembly, Minister of the Crown or the Auditor-General; and to inquire into expenditure in excess of appropriation. The Committee also has power to inquire into any matter of Government policy which is referred to it by the Legislative Assembly or a Minister of the Crown.

Parliamentary Contributory Superannuation Scheme

In terms of the Parliamentary Contributory Superannuation Act 1971, it is compulsory for all members of both Houses to contribute to the Parliamentary Contributory Superannuation Fund. All members contribute 12.5 per cent of their salary.

Members of both Houses are entitled to retire on a pension, paid from the Fund, *(a)* on the grounds of ill-health, or *(b)* at any time after seven years” service. The annual pension payable to a private member rises from 48.8 per cent of annual salary at retirement after seven years service to a maximum of 80 per cent after twenty years of service. Provision is made for a member to commute specified proportions of his pension to a lump sum and for pensions to be adjusted when the salaries of members of Parliament are varied. Where there is no pension entitlement, provision has been made for the refund of contributions together with a supplement at a rate according to whether retirement is voluntary or involuntary. Spouses” pensions are at three-quarters of a deceased member's entitlement with a minimum of 45 per cent of current basic parliamentary salary. Benefits have been provided for each dependent child of a former member entitled to a pension at the rate of 5 per cent of current basic salary where there is a surviving spouse and 10 per cent for each orphan child.

At 30 June 1986, pensioners totalled 158 (109 ex-members and 47 widows, one widower and one child) and accumulated funds amounted to $30.7m. Income of the fund during 1985-86 was $13.5m including $857,000 of members' contributions and $9.0m from the Consolidated Fund.

During 1985-86 pension payments amounted to $2.3m and lump sum payments to $1.5m.

STATE ELECTORAL SYSTEM

The electoral system is administered by an Electoral Commissioner, who is charged with the administration of the provisions of the Acts relating to the registration or enrolment of electors, the preparation of rolls, and the conduct of elections for the Legislative Assembly and Legislative Council and of referendums under the Constitution Further Amendment (Referendum) Act 1930. The Electoral Commissioner holds office until he reaches 65 years of age, and may be removed from office only by resolution of both Houses of Parliament.

Franchise

The elections of members of the Legislative Assembly and Legislative Council are conducted by secret ballot. Since 26 January 1984, only Australian citizens aged 18 years or over are eligible to enrol to vote. British subjects other than Australian citizens who were on the roll on that date retain all enrolment and voting rights. Persons are disqualified from voting if they are of unsound mind, or have been convicted and sentenced to a term of imprisonment of one year or longer and are in prison pursuant to such sentence. In 1973, the age at which persons become eligible to vote was lowered from 21 years to 18. Each elector is entitled to one vote only. Compulsory enrolment was introduced in 1921 and compulsory voting came into force in 1930. Joint electoral rolls are compiled for both State and Commonwealth Government purposes.

Electorates

Legislative Assembly

The following table shows the number of electorates (electoral districts) and the years in which redistributions changing the number of seats occurred since 1904. Electoral redistributions have also taken place in 1904, 1912, 1918, 1926, 1928, 1939, 1949, 1952, 1957, 1961, 1966, 1970, 1973, 1980 and 1987.

1904	*1949*	*1970*	*1973*	*1987*
90	94	96	99	109

The Constitution Act provides for a redistribution of the State into electoral districts to be made *(a)* when the number of members of the Legislative Assembly is changed and *(b)* as soon as practicable after every second general election. The Act also specifies that the boundaries must be determined in such a way that at the time the distribution is made, the number of electors in each district is within 10 per cent of the quota of electors for each district calculated by dividing the total number of persons entitled to vote in a general election in the State by the number of proposed electoral districts in the State. In addition to complying with this requirement of the Constitution Act, Electoral District Commissioners also have to consider other criteria for distributions. These criteria which have varied over time are given in the Parliamentary Electorates and Elections Act 1912 and details on them are given in earlier editions of the Year Book. An amendment in 1986 to the Parliamentary Electorates and Elections Act provides that commissioners shall also:

(a) have regard to demographic trends within the State and, as far as practicable, endeavour to ensure on the basis of those trends that, four years from the day of the return of the writs for choosing the Legislative Assembly that exists at the time the distribution is carried out, the number of electors enrolled in each electoral district will be equal; and

(b) subject to *(a)*, give consideration, in relation to each electoral district, to —

  (i) community of interests within the electoral district, including economic, social and regional interests;
  (ii) means of communication and travel within the electoral district;
  (iii) the physical features and area of the electoral district; and
  (iv) the boundaries of the existing electoral districts.

Redistribution of electorates is undertaken by three Electoral Districts Commissioners appointed by the Governor (they comprise *(a)* a person who is, or has been, a judge of the Supreme Court or a District Court or a member of the Industrial Commission, *(b)* the Electoral Commissioner, and *(c)* a registered surveyor). Electoral Districts Commissioners may call for and consider suggestions and comments on suggestions, as well as objections, before determining or altering any electoral districts.

Particulars of parliamentary representation in New South Wales in each of the years in which elections for the Legislative Assembly have been held since 1971 are given in the next table.

Legislative Assembly: Electorates and Electors

Year of election	*Electorates*	*Electors enrolled*	*Average number of electors per electorate*	*Average number of persons per electorate*	*Proportion of electors to total persons (per cent)*
1971	96	2,496,868	26,009	47,918	54.3
1973	99	2,788,733	28,169	48,646	57.9
1976	99	2,989,786	30,200	49,565	60.9
1978	99	3,085,661	31,168	50,791	61.4
1981	99	3,212,657	32,451	52,903	61.3
1984	99	3,330,350	33,640	54,394	61.8

Note. Franchise was extended to persons 18 years and over in March 1973.

A member of the Legislative Assembly is elected to represent each electoral district. The method of *optional preferential voting* is used in elections for members of the Legislative Assembly. In this method of voting, a voter is required to record a vote for one candidate only, but is permitted to record a vote for as many more candidates as desired, to indicate the order of his preferences for them. In counting votes for the Legislative Assembly, the candidate is elected who has secured a majority of first preference votes; if there is no such candidate, a second count is made, from which the candidate with the lowest number of first preference votes is excluded, and his ballot papers are transferred to the candidate next in the order of the voter's preference and counted to him as a vote. A candidate who has a majority of the votes remaining in the count is elected; if there is no such candidate, the process is repeated.

Legislative Council

The *optional preferential method* of voting is also used in elections for members of the Legislative Council. A voter is required to vote for at least 10 candidates, but is permitted to indicate his preferences beyond 10 candidates, if desired. The whole State constitutes a single electoral district for Legislative Council elections.

Voting

At general elections, polling is conducted on the same day in all electorates, subject to provisions for adjournment of the poll for certain causes. Polling day (invariably a Saturday for many years) is a public holiday from noon. The (Commonwealth) *Broadcasting and Television Act 1942* prohibits the broadcasting or televising of advertisements, which contain political matter, in New South Wales on the day of a State or Commonwealth general election or the two days preceding it. Prior to an amendment of this Act in 1983, the ban applied to any form of political news or comment.

Electors absent from their subdivision are permitted to record their votes at any polling place in the State, such votes being designated "absent votes". Postal voting is provided for those electors who will be absent from the State on polling day, for those who will be more than eight kilometres from any polling place open on polling day or will be travelling under conditions which would prevent their attendance at a polling place and for persons precluded from attending at a polling place by reason of imprisonment, illness, incapacity, or religious belief. A "mobile" polling booth is provided for the inmates within convalescent homes, hospitals, and similar institutions at which there is a polling place.

Referendums

Since 1903, thirteen referendums have been submitted to the electors of New South Wales, five of which related to trade in alcoholic beverages, seven to constitutional questions, and one to daylight saving. The last referendum held (in September 1981) submitted two proposals. The first proposal was that the maximum period between general elections for the Legislative Assembly be extended from three to four years. The second proposal was that members of parliament be required to disclose certain pecuniary interests and other matters. Both proposals were accepted.

Election Funding

The Election Funding Act 1981 makes provision for the public funding of State parliamentary election campaigns. The Act provides for the constitution of the Election Funding Authority of New South Wales which consists of three members. One member is the Electoral Commissioner (the Chairman), and the other two members are appointed by the Governor on the nominations of the Premier and the Leader of the Opposition in the Legislative Assembly. The Authority is responsible for maintaining the registers of parties, groups of candidates and individual candidates, receives declarations of income and expenditure by them, and assesses entitlement to funds. Parties, groups, and candidates are not eligible for funding unless they are registered. Electoral expenditure includes expenditure on advertising, holding rallies, travel expenses, and research. The Authority decides whether any expenditure is expenditure for election campaign purposes and its decision is final.

Court of Disputed Returns

The Parliamentary Electorates and Elections Act provides for the establishment of a Court of Disputed Returns — a jurisdiction conferred on the Supreme Court. The business of the Court is to inquire into and determine matters connected with election petitions and questions referred to it by the Legislative Assembly or Legislative Council concerning the validity of any election or the return of any member, and questions involving the qualifications of members. Decisions of the Court are final, but must be reported to the House.

COST OF PARLIAMENTARY GOVERNMENT

The following statement shows the annual cost of the State parliamentary government in New South Wales in each of the last six years.

Cost of State Parliamentary Government, N.S.W.

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Total cost ($'000)			
Governor *(a)*	820	789	1,086	1,283	897	1,153
Ministry *(b)*	1,440	1,707	1,726	1,953	2,323	*(f)*2,241
Parliament—						
Legislative Council *(c)*	1,130	1,282	1,569	2,157	3,398	2,826
Legislative Assembly *(c)*	3,729	4,401	4,799	4,718	5,163	5,405
Both Houses *(d)*	11,014	12,656	16,823	18,246	18,888	26,154
Total, Parliament	*15,873*	*18,339*	*23,191*	*25,121*	*27,449*	*34,385*
Electoral *(e)*	1,169	6,439	2,304	7,372	4,474	1,484
Royal commission, select committees etc.	280	234	1,124	2,312	2,917	1,485
Total cost	**19,582**	**27,508**	**29,431**	**38,041**	**38,060**	***(f)*40,748**
			Cost per head of mean estimated resident population ($)			
Cost per head	3.76	5.22	5.52	7.06	p6.95	*(f)*p7.35

(a) Salaries and other expenses including maintenance of house and grounds. *(b)* Salaries, travelling and other expenses of ministers. *(c)* Allowances to members (including ministers salaries as members), travelling and other expenses. *(d)* Government contributions to members'' superannuation fund, library, printing, reporting staff and other expenses. *(e)* Salaries and costs of elections. *(f)* Not comparable with previous years due to impact of program budgeting.

Some of the expenditure included above is partly attributable to parliamentary government and partly to ordinary administration. This applies particularly to the salaries and expenses of Ministers of the Crown, who fill dual roles as administrative heads and parliamentary representatives, and to the cost of Royal Commissions, which, in many cases, are partly administrative inquiries. As expenditure of this nature cannot be dissected, these items have been treated as incidental to the system of parliamentary government. On the other hand, items such as ministerial motor cars and the salaries of ministers" private secretaries are omitted from account as being mainly administrative costs. Particulars in the table do not represent the total cost of parliamentary government in New South Wales because the Commonwealth parliamentary government is excluded.

STATE ADMINISTRATIVE ARRANGEMENTS

The administrative arrangements of the State Government, which were current when this Year Book went to press, are outlined in Appendix D to this volume.

Auditor-General

The Auditor-General is appointed by the Governor and holds office until the age of 65 years. Removal from office can occur only on an address from both Houses of Parliament. Before taking office, the Auditor-General must make a declaration, before a Supreme Court Judge, undertaking to perform the duties faithfully, impartially and truly. The position is free from direct ministerial control as responsibility is to the Parliament.

The Public Finance and Audit Act 1983 sets out the powers and duties of the Auditor-General which form an integral part of the system of accountability of the executive and administrative arms of government to the Parliament. The Auditor-General is required to conduct independent audits of the Public Accounts of the Treasurer and the accounts of approximately 320 budget sector departments and statutory bodies. Regard is had to the character and effectiveness of relevant internal controls and recognised professional standards and practices. To help conduct the role, the Auditor-General is provided with up to 204 members of staff attached to the Auditor-General's Office.

The Auditor-General is required to report to Parliament not later than 30 September each year but may make special reports at any time.

As well as having authority to audit the accounts of departments and statutory bodies at any time or following the request of the Treasurer or a Minister, the Auditor-General has a variety of implied powers and responsibilities arising from judicial decisions, accounting conventions and standards.

Administrative Law

Individuals and groups seeking a review of, or an appeal against administrative decisions and actions of Commonwealth, State and local government departments and authorities have several means of administrative review open to them. The functions and powers of the New South Wales and Commonwealth Ombudsmen and other courses through which the outcomes of administrative decisions can be subject to examination are contained in the subsection "Administrative Law" in the chapter "Law, Order and Public Safety".

Overseas Representation

The State of New South Wales maintains an Agent-General's Office in the *United Kingdom* (in London: 65-72 Strand, W.C.2N.5LZ). As official representative of the State, it is the function of the Agent-General to work in close co-operation with the High Commissioner for Australia, to keep the Government informed of political and economic developments overseas, to promote trade with New South Wales, and to act as agent for the State in Europe.

The State Government also maintains offices in the *United States of America* (at Los Angeles: Commissioner, New South Wales Government Centre, Suite 2250, 2 Century Plaza, 2049 Century Park East, Los Angeles, California, 90067), and in *Japan* (at Tokyo: Commissioner, New South Wales Government office, Suite 525-526, Fuji Building, No. 2-3 Marunouchi 3 Chome, Chiyoda-Ku, Tokyo, 100). These offices, which are administered by official representatives, were established primarily to promote investment in and trade with New South Wales.

THE COMMONWEALTH GOVERNMENT

The federation of the six Australian States was formally inaugurated on 1 January 1901. A detailed account of the inauguration of the Commonwealth, and of the nature and functions of the Commonwealth Parliament in their relation to the State, was published on pages 38-40 and 625 of the Year Book for 1921.

The Constitution of the Commonwealth of Australia prescribes that the seat of the Commonwealth Government must be within the State of New South Wales. Canberra, the site chosen, was surrendered (as from 1 January 1911) to the Commonwealth Government by New South Wales by the Seat of Government Surrender Act 1909, and accepted by the Commonwealth Government by the *Seat of Government Acceptance Act 1909-*. The area ceded to the Commonwealth became the Australian Capital Territory. The Commonwealth Parliament commenced regular sittings at Canberra in 1927.

The broad principles of federation were: the transfer of specified powers of legislation to the Commonwealth Parliament, which was to include a Senate and a House of Representatives, the former intended to be a house of review in which the States were equally represented, and the latter, the principal chamber, to consist of members elected from the States in proportion to their population (except that for any original State the number was not to be less than five); complete freedom of action for the State Parliaments in their own sphere; a High Court to determine the validity of legislation; and an effective method of amending the constitution. State laws remain operative in all spheres until superseded by laws passed by the Commonwealth Parliament in the exercise of its assigned powers. State laws, however, are invalid only to the extent of their inconsistency with valid Commonwealth enactments.

COMMONWEALTH LEGISLATURE

The Commonwealth Parliament consists of the Queen, the Senate (the Upper House) and the House of Representatives (the Lower House). The Governor-General is appointed by the Sovereign and is her representative in Australia. The executive power of the Commonwealth Government is vested in the Sovereign, and is exercisable by the Governor-General as her representative. His Excellency the Right Honourable Sir Ninian Stephen, A.K., G.C.M.G., G.C.V.O., K.B.E., was sworn in as Governor-General on 29 July 1982.

The first Parliament of the Commonwealth of Australia was convened by proclamation of 29 April 1901, and was opened on 9 May 1901. Sittings were held in Melbourne, Victoria until 9 May 1927, when they were transferred to Canberra, Australian Capital Territory.

The Senate

Electorates

In terms of the Constitution of the Commonwealth of Australia, the Senate is composed of an equal number of senators from each State. Each of the six States returns twelve senators and the Australian Capital Territory and the Northern Territory return two each.

Elections

Ordinarily the term of a senator elected to represent a State is six years, half the number of senators retiring every three years. In the case of a double dissolution (the fifth of which occurred on 4 February 1983), all State senators are elected at the same time, half the number serving for three years and half for six years. In ordinary elections, State senators commence their term from 1 July following their election, but in the case of an election following a double dissolution, the term is calculated from 1 July preceding their election. Senators elected to represent the Australian Capital Territory and the Northern Territory are elected for a maximum term of three years, at elections coinciding with those for the House of Representatives.

In the election of senators, the whole State or Territory votes as one electorate. Voting for the Senate is based on the system of proportional representation.

If the place of a senator for a State becomes vacant before the expiration of his term of service, a person from the same political party is chosen to hold the place until the expiration of the term. In New South Wales, the replacement is chosen by the Legislative Council and Legislative Assembly sitting and voting together.

Since the election held on 1 December 1984 party affiliations of candidates are shown on the ballot paper for the first time. Electors may now vote for a particular political party and preferences are automatically distributed in accordance with the order lodged by that party with the Electoral Commission. Alternatively electors may still indicate their preferences for individual candidates in an order of their own choice. At the December 1984 elections there were 3,423,624 electors enrolled (or 95 per cent) of whom 3,233,264 voted. Informal votes numbered 181,572 (6 per cent).

Party affiliations in the Senate for the 34th Parliament at 28 February 1986 for Australia (and for New South Wales) are as follows: Australian Democrats 7 (1 in N.S.W.), Australian Labor Party 34 (6), Independent 2 (nil), Liberal Party of Australia 28 (4) and National Party of Australia 5 (1).

The House of Representatives

Electorates

The Commonwealth Constitution prescribes that the number of members in the House of Representatives must be, as nearly as practicable, twice the number of senators. The Constitution also prescribes that the number of members chosen in the several States must be in proportion to the population of the States, subject to the proviso that each State has at least five members.

The number of members to be chosen in a State is determined (subject to the minimum of five members) by *(a)* ascertaining a quota by dividing the aggregate population of the six States by twice the number of senators and *(b)* dividing the population of the State by the quota. The representation of the States is adjusted by means of an electoral redistribution, in time for each ordinary general election, if a determination by the Australian Electoral Commissioner, based on the latest population statistics, discloses that the number of members of the House of Representatives for any State should be altered.

The Parliament has made laws which determine the extent and terms of representation of the Northern Territory and the Australian Capital Territory in the House of Representatives. The Northern Territory has one representative and the Australian Capital Territory two representatives.

Members of the House of Representatives are elected for three years in single-member constituencies, and the system of voting is preferential. Whenever a vacancy occurs in the House, writs are issued for a by-election.

Elections

All New South Wales seats in the House of Representatives were contested at the election on 1 December 1984. There were 3,423,624 electors enrolled of whom 3,221,911 or 94 per cent voted. The number of informal votes recorded was 198,509 or 6 per cent. The next table shows the number of members representing the various States and Territories in the House of Representatives since 1969 and party representation following the 1984 election.

House of Representatives: Number of Members and Political Affiliations

Period	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
Number of members									
1968 to 1969	46	33	18	11	9	5	1	1	124
1969 to 1974	45	34	18	12	9	5	1	1	125
1974 to 1977	45	34	18	12	10	5	1	2	127
1977 to 1979	43	33	19	11	10	5	1	2	124
1980 to 1984	43	33	19	11	11	5	1	2	125
Since 1984	51	39	24	13	13	5	1	2	148
Political affiliation December 1984 *(a)*									
Australian Labor Party	29	25	9	8	9	—	—	2	82
Liberal Party of Australia	12	11	7	5	4	5	1	—	45
National Party of Australia	10	3	8	—	—	—	—	—	21

(a) Following return of writs after election of 1 December 1984.

COMMONWEALTH ELECTORAL SYSTEM

Australian Electoral Commission

The Australian Electoral Commission was established under the *Commonwealth Electoral Act 1918* in 1984 as an independent statutory body to replace the Australian Electoral Office. The Commission's responsibilities include maintenance of electoral rolls, conducting elections, the administration of public funding of election campaigns; the administration of legislation governing disclosure of donations to political parties and candidates and electoral expenditure of candidates, parties and organisations; independent periodic redistribution of electoral boundaries; and the administration of the Commonwealth Electoral Act.

Franchise

The elections of members of both Houses of Parliament are conducted by secret ballot, supervised by the Australian Electoral Commissioner. There is universal adult suffrage, conditions for enrolment being similar to those operating in respect of State elections. In 1973, the age at which persons become eligible to vote, subject to the other conditions for enrolment, was lowered from 21 to 18 years. Since 26 January 1984, only Australian citizens aged 18 years or over are eligible to enrol to vote. British subjects other than Australian citizens who were on the roll on that date retain all enrolment and voting rights.

Electoral Funding

The Commonwealth Electoral Act provides for public funding of election campaigns, disclosure of political donations, and disclosure of electoral expenditure. Only political parties that are registered in the Register of Political Parties for the purposes of public funding and candidates and groups of candidates who are similarly registered in the Register of Candidates are eligible to claim public funds in respect of their election campaigns. All political parties, candidates and groups, whether or not they are registered for the purposes of public funding, are required to disclose donations received and electoral expenditure incurred.

Referendums

For alteration of the Constitution of the Commonwealth, the proposal must normally be passed by an absolute majority of each House before being submitted to a referendum of the electors in each State and Territory, where it must be approved *(a)* by a majority of electors voting in a majority of the States and *(b)* by a majority of all the electors voting in Australia. In all, 38 questions relating to alteration of the Commonwealth Constitution have been submitted by referendum. Only in eight matters were the proposals approved. In four instances, rejection was due to lack of approval in a majority of the States, although the aggregate votes cast in Australia favoured the proposals.

LOCAL GOVERNMENT

The existing system of local government in New South Wales was established by Acts passed in 1905 and 1906. A consolidating law, the Local Government Act 1919, with subsequent amendments and comprehensive ordinances, constitutes the present-day charter of local government in the State. Other statutes, which are supplementary to the system of local government, relate to water supply, sewerage, gas, and electricity services, main roads, and the valuation of land. The activities of local government authorities are supervised by the Minister for Local Government.

The City of Sydney was first constituted by statute in 1842. Its civic affairs were governed by the Sydney Corporation Act until 1 January 1949, when the Act was repealed and the City of Sydney became subject to the general provisions of the Local Government Act.

Local government extends over almost 90 per cent of New South Wales, including the whole of the Eastern and Central Land Divisions and almost three-quarters of the sparsely-populated Western Land Division. The area of all municipalities and shires at 30 June 1986 was 705,679 sq. km and the (preliminary) estimated resident population at 30 June 1986 was 5,475,550. The unincorporated area comprised 95,677 sq. km with 1,350 persons.

For details on local government finance see the division "Local Government Finance" in the chapter "Public Finance".

LOCAL GOVERNMENT AUTHORITIES

The two basic types of areas established for local government purposes are known as municipalities and shires. *Municipalities*, the earlier form of corporation, are usually centres of population smaller in extent than shires. *Shires* are, for the most part, country areas embracing tracts of rural lands as well as towns and villages. Municipalities may be subdivided into wards, and shires into ridings.

New local government areas may be constituted, and the boundaries of existing areas may be changed, on the proclamation of the Governor. The Local Government Boundaries Commission which is established under the Local Government Act, examines proposals for the constitution of new areas and the alteration of boundaries of existing areas, and makes recommendations on these proposals to the Minister for Local Government. At 1 January 1987 there were 62 municipalities and 113 shires.

Under the Local Government Act, a municipality may be proclaimed as a city if it has a distinct character and entity as a centre of population and has a population of at least 150,000 persons, or if it is an independent centre of population and has a population of at least 25,000 persons. An amendment to the Act in 1986 empowers the Governor-in-Council to proclaim a municipality as a city where it is in the interests of the residents of the municipality and the circumstances of the case render it proper to do so. Thirty municipalities have been proclaimed as cities.

Each municipality and shire is governed by an elected council. The councils of the Cities of Sydney and Wollongong consist of 28 and 15 aldermen, respectively. Newcastle City Council previously consisted of 21 aldermen, but the City of Newcastle Act 1986 changed the number of aldermen to 12. In other municipalities, the number of aldermen ranges from 9 to 20; and in the shires, the number of councillors ranges from 6 to 15.

Each municipality and shire has a chief executive and presiding officer, known as the Lord Mayor in the Cities of Sydney, Newcastle, and Wollongong, as the mayor in other municipalities, and as the president in shires. Lord Mayors are elected by popular vote at the local government general elections. Mayors and presidents are generally elected annually by members of their councils from among themselves; however, councils may apply for these positions to be elected by popular vote at the general elections.

Aldermen and councillors receive no remuneration for their services, but are paid a fee by their councils for attending council meetings, making inspections, and attending to council business outside of its area; this fee is limited to $30 in any period of 24 hours, and to an aggregate of $1000 in a year. Individual members of councils may elect to receive only part or none of this amount. The majority of mayors and shire presidents receive an annual expense and entertainment allowance from their councils.

The Local Government Act and its ordinances prescribe procedures and standards to be followed by local councils, and the Governor has the power, which has been exercised on several occasions, to suspend or dissolve a council and appoint an administrator to carry on temporarily. At the time of manuscript preparation an administrator is managing the affairs of the Sydney City Council (dissolved March 1987).

In the shires, urban areas may be established upon proclamation by the Governor if the majority of the electors in the locality favour the project. In such cases, the council of the shire exercises within each urban area the powers of the council of a municipality. Urban committees may be elected to exercise within the urban areas certain powers of the council, and to expend money raised by a local rate levied by the council upon the request of the urban committee. Councillors of the shire may not seek election to an urban committee. In January 1987, there were 77 urban areas and 16 urban committees.

The town or shire clerk, who is responsible for carrying out a council's decisions and is the general administrator, is appointed by a council following public advertisements of the vacancy. The town or shire clerk must hold specific certificates of qualification which are issued by the State Government.

County councils, which are an important feature of local government in New South Wales, are constituted for the administration of specified local services of common benefit in districts which comprise a number of municipalities and shires. The members of the county councils are delegates from the constituent municipal and shire councils. Except for the Sydney County Council, which was constituted under the Gas and Electricity Act 1935, all county councils are regulated by the Local Government Act.

There were 42 county councils in 1987 of which 23 conducted electricity undertakings, 6 operated water supply schemes, 5 conducted an abattoir, 10 controlled eradication of aquatic pests and/or noxious plants, 1 was involved with flood control; 2 were involved with coal mining and one with public aviation stations.

LOCAL GOVERNMENT ELECTORAL SYSTEM

Aldermen and councillors normally hold office for a term of four years. Councils are elected for a fixed term with elections being held on the fourth Saturday in September. Since January 1984 only Australian citizens aged 18 years and over who are qualified as owners of rateable land, or as residents of the local government area are eligible to enrol to vote. The voting rights of British Subjects, who were enrolled prior to January 1984, were preserved.

The qualification as owner includes lessees of Crown Land and a representative from a body corporate or trustees which owns rateable land. A person is entitled to enrolment as a resident in a ward or riding if he is enrolled on the Parliamentary electoral roll and his place of living, as there stated, is in the ward or riding. In 1980 the right of a rate-paying lessee to vote was abolished.

A person may be enrolled and may vote only once in each municipality or shire in which he is qualified. If qualified in more than one ward or riding of the same municipality or shire, he may nominate the ward or riding in which he desires to enrol.

Voting was compulsory for resident electors at all local elections from 1947 to 1965, and for non-resident electors at the elections held from 1947 to 1953. Voting was not compulsory at the elections held in 1968, 1971, and 1974 but voting was compulsory for resident electors at the elections held in 1977, 1980 and 1983.

The preferential voting system was used by all councils at the local government elections held in 1968, 1971, and 1974. At the elections held from 1953 to 1965, and in 1977, 1980 and 1983, the system of proportional representation was used in the local government areas having three or more seats in each ward (or riding), and the preferential voting system was used in the other areas.

Unless disqualified by the Local Government Act, any person entitled to vote may be elected to a municipal or shire council.

FUNCTIONS OF LOCAL GOVERNMENT

The local government authorities in New South Wales are responsible for the local government of their areas, and they may exercise powers and functions granted them by statute, principally by the Local Government Act and its ordinances, but also by other legislation such as the Public Health Act. The local authorities share some functions with statutory bodies such as the Department of Main Roads and the Board of Fire Commissioners of New South Wales, and they provide certain services in co-operation with State Government departments.

A list of the principal functions of the local government authorities is set out below. It comprises the major services which may be rendered by councils in the normal exercise of their powers, including those carried out through trading undertakings established by them to provide electricity, gas, water, sewerage, and like services. Further details of the activities of local councils are given in the "Local Government Finance" division in the "Public Finance" chapter.

Public Roads, etc. Councils co-operate with the Department of Main Roads in the construction and maintenance of the main roads system (see the division "Roads and Bridges" in the chapter "Transport and Construction"), and they are responsible for the construction and upkeep in their areas of other public roads (local roads), footpaths, and kerbing and guttering, and the provision of street lighting. Councils control the use of roads, structures on or abutting on roads, and menaces on roads, and they may provide parking areas. The function dealing with roads, etc. is one of the oldest exercised by councils, and it accounts for a large proportion of councils' expenditure.

Public Health. In settled areas, councils regularly collect and dispose of garbage, and they provide a sanitary service in unsewered localities. Councils may provide drainage services, control the use of premises in which foodstuffs are prepared or sold, license certain types of shops and boarding and lodging houses, and control the keeping of animals and poultry on premises. Health services proper include immunisation against infectious diseases, medical and nursing services, and baby health clinics. Councils may subsidise hospitals, ambulance services, and surf life-saving clubs.

Public Recreation. Councils provide and maintain recreation reserves, including facilities for sports, children's playgrounds, swimming baths, and camping areas. Councils regulate bathing on beaches and some forms of public amusement. They may provide senior citizens' and child care centres, acquire and preserve places of scenic attraction or historical interest, and may conduct tourist bureaus. Most councils have established public libraries. Further details of this activity are given in the chapter, "Culture and Recreation".

Building. Councils are responsible for the detailed control and inspection of building construction in their area, and they may compel the repair or demolition of unsatisfactory structures. Intending private builders have to submit detailed plans for council's building approval before commencing construction. Most councils employ a building surveyor, whose principal duty is to ensure that any new construction in the area complies with the building regulations. Councils may erect and sell or lease buildings, and make advances for the erection of new houses or the purchase of existing houses.

Trading Undertakings. Trading undertakings have been established by a number of councils for the supply of electricity and gas on the principle of "minimum cost to the consumer", and for the operation of water and sewerage works and abattoirs. Councils may erect and operate community hotels. Other trading functions are authorised by the Act.

Other Functions. Further facilities and services which councils may provide include public markets, wharves, pounds, cemeteries, drinking fountains, clocks, public conveniences, commons, aerodromes, flood mitigation, civic centres, community welfare services, and bush fire brigades. Councils may supply trees, shrubs and other vegetation for planting in their area. They are also permitted to make, buy and sell promotional and souvenir materials. Councils are required to register dogs and control straying animals; they may regulate advertisements, hoardings, burials, and cremations (and may themselves erect crematoria), and can order the destruction of noxious animals and weeds. They are also empowered to acquire land by lease, purchase, or resumption, to prepare local environment plans and (subject to the approval of the Minister) to assist with the development of manufacturing and wholesaling activities in their area. Further details of the role of local councils in environmental planning and assessment and development control are given in the subdivision "Environmental Planning and Assessment Act 1979" in the chapter "Land Use".

FURTHER REFERENCES

A.B.S. Publications (N.S.W. Office): *Pocket Year Book* (Catalogue No. 1302.1) **Other Publications:** L.J. Rose *The Framework of Government in New South Wales,* Government Printer, New South Wales, 1972; R.S. Parker *The Government of New South Wales,* University of Queensland Press, 1978; Electoral Commissioner of New South Wales *Statistical Returns;* State Government Information Service *The Government of New South Wales Directory of Administration and Services*; Australian Electoral Commission *Election Statistics* and Annual Report; *House of Representatives Practice*, edited by J.A. Pettifer, Australian Government Publishing Service 1981; Annual Reports of the Department of Local Government and the Department of Lands; Bluett's *Local Government Handbook (N.S.W.)* The Law Book Company Limited; Annual Report of Election Funding Authority of New South Wales; *Directory of Local Government in New South Wales 1986,* Department of Local Government.

3

POPULATION

THE CENSUS

CENSUS ENUMERATION IN NEW SOUTH WALES

The number, distribution, and characteristics of the population of New South Wales have been ascertained at intervals by censuses — house-to-house enumerations taken under the provisions of Acts of Parliament. People are enumerated at the "dwelling" where they spent the night at the date of enumeration (or where they returned the following day, not having been counted elsewhere), i.e. they are counted at their "place of actual location" within Australia on census night.

Simple enumerations were made by regular musters of the population during the first forty years of existence of the Colony. The first actual census was taken in 1828. This was followed by census enumerations held in 1833 and 1836, and then at five-yearly intervals until 1861. Thereafter a census was taken at ten-yearly intervals until 1921. The census which was due to be held in 1931 was postponed for reasons of economy until 1933, and, because of the war, the following census was not taken until 1947. Censuses have since been held in 1954 and 1961, and at five-yearly intervals thereafter. The most recent census was held on 30 June 1986.

The successive censuses up to 1901 were taken under the authority of the State Government but, with Federation, the Commonwealth Government was empowered to take censuses, and the census of 1911 and all succeeding censuses have been conducted by the Australian Statistician.

Post-Enumeration Survey

While every effort is made to minimise under-enumeration in all field collections, including the census, some inevitably remains for various reasons (e.g. inadvertent omission of very young children, or treatment by the collector of an occupied dwelling as unoccupied). Refusal by householders to complete the census schedule is not a significant cause of under-enumeration as estimates by the collector are used in such cases. These and similar problems are common to all population censuses, and the degree of under-enumeration is very low by world standards.

A post-enumeration sample survey, designed to measure the degree of error and under-enumeration in the census, is conducted after each census by specially trained interviewers. Net under-enumeration in the State is derived by comparing results from the census and the post-enumeration survey for the same individuals, and identifying omissions and duplications in the census. Adjustments for under-enumeration are applied to census counts on a place of usual residence basis when making estimates of resident population (see division "Intercensal Estimates" later in this chapter). The adjustment applied to the 1981 Census count of usual residents of New South Wales was 1.788 per cent.

THE GROWTH OF POPULATION IN NEW SOUTH WALES

The population of the Colony fluctuated during the first twenty-three years of its existence, but nevertheless increased from 1,035 in 1788 to 10,096 in 1810. Since 1810, the population has increased each year, with the exception of 1916 when large numbers of troops were overseas. The rate of growth, however, has varied considerably. New South Wales reached its first million of population in 1887, 100 years after its foundation, its second million 32 years later in 1919, its third million in 1947 (28 years later), its fourth million in 1962 (15 years later), and its fifth million in 1977 (15 years later).

Manuscript of this section prepared in February 1986

The growth of population of New South Wales between 1788 and 1856 is traced on page 223 of the Official Year Book for 1922, and the area and population at each territorial readjustment are shown on page 1 of Year Book No. 64. The regular census enumerations furnish a connected summary of the growth of population since 1856 as shown in the following table.

Persons Counted at Each Census of New South Wales *(a), 1861 to 1981*

				Increase since previous Census			
Date of Census	*Males*	*Females*	*Persons*	*Numerical*	*Proportional (per cent)*	*Average annual rate (per cent)*	*Number of persons per square kilometre*
7 April 1861	198,488	152,372	350,860	*(b)*168,436	*(b)*92.55	*(b)*6.76	0.4
2 April 1871	274,842	228,156	502,998	152,138	43.36	3.67	0.6
3 April 1881	410,211	339,614	749,825	246,827	49.07	4.07	0.9
5 April 1891	609,666	517,471	1,127,137	377,312	50.32	4.16	1.4
31 March 1901	710,264	645,091	1,355,355	228,218	20.25	1.86	1.7
3 April 1911	857,698	789,036	1,646,734	291,379	21.50	1.97	2.0
4 April 1921	1,071,501	1,028,870	2,100,371	453,637	27.55	2.46	2.6
30 June 1933	1,318,471	1,282,376	2,600,847	500,476	23.83	1.76	3.2
30 June 1947	1,492,211	1,492,627	2,984,838	383,991	14.76	0.99	3.7
30 June 1954	1,720,860	1,702,669	3,423,529	438,691	14.70	1.98	4.3
30 June 1961	1,972,909	1,944,104	3,917,013	493,484	14.41	1.94	4.9
30 June 1966	2,126,652	2,111,249	4,237,901	319,400	8.15	1.58	5.3
30 June 1971	2,307,210	2,293,970	4,601,180	363,279	8.57	1.66	5.7
30 June 1976	2,380,149	2,396,952	4,777,101	175,921	3.82	0.75	6.0
30 June 1981	2,548,984	2,577,233	5,126,217	349,116	7.31	1.42	6.4

(a) The figures exclude Australian Capital Territory in 1911 and later years, and full-blood Aboriginals before 1966; see text below table. *(b)* Since 1851.

Full-blood Aboriginals were excluded from population statistics prior to the amendment of the Constitution of the Commonwealth of Australia in 1967. Population figures for 1966 have been adjusted to include full-blood Aboriginals and the population statistics for 1966 and all later periods include full-blood Aboriginals.

Steady growth of population until 1891 was succeeded by a slower rate of progress during the next two decades, owing to commercial and industrial stagnation following the economic crisis of 1893, with a resulting fall in immigration. Assisted immigration was practically suspended from 1885 to 1905. As economic conditions improved early in the twentieth century, the rate of growth of population improved; the average annual rate of increase between 1911 and 1921, viz., 2.46 per cent, was greater than that for either of the two previous decades, despite the dislocations caused by World War I.

The next intercensal period, 1921 to 1933, commenced with a recession from the post-war boom, which was followed by a period of steady progress with revival of immigration until 1928, and ended in years of severe economic recession and substantial emigration.

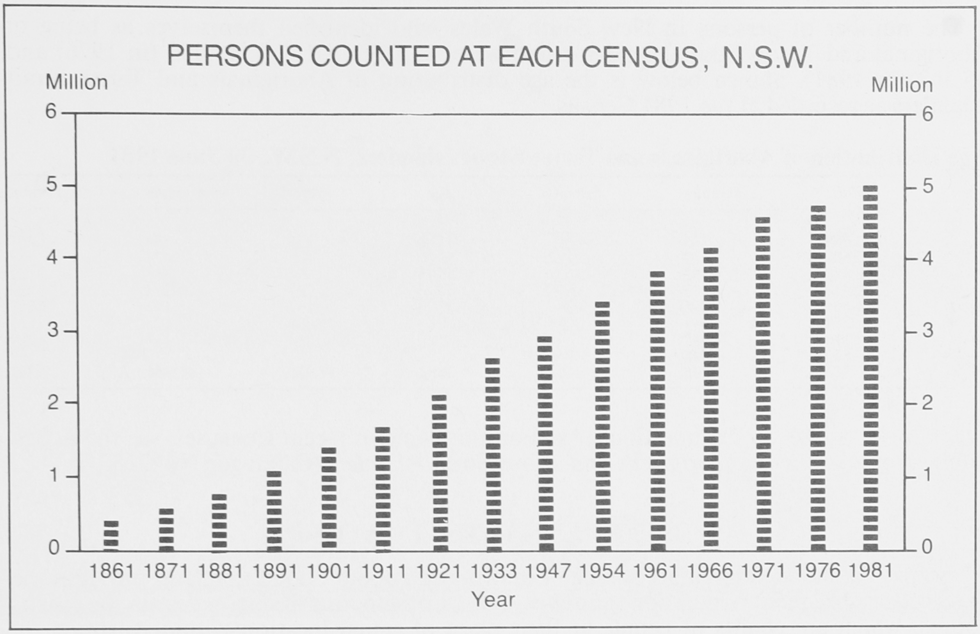
The period from 1933 to 1947 was marked by a gradual recovery from the economic recession and World War II. With a lower rate of natural increase and greatly reduced immigration over these years, the average annual rate of increase (0.99 per cent) was by far the lowest recorded for an intercensal period up to that time.

The average annual rate of population increase rose to 1.98 per cent during the seven years from 1947 to 1954, and fell only slightly to 1.94 per cent during the seven years from 1954 to 1961. This period of fourteen years was marked by a relatively high rate of natural increase and by considerable gains from immigration (which accounted for about one-third of the total increase in population).

Between 1961 and 1966, the average annual rate of increase fell to 1.58 per cent, reflecting lower rates of both natural increase and net migration during the period. During the five years from 1966 to 1971, the rate of natural increase fell further. However, a recovery in the rate of natural increase had occurred by 1971, and this, combined with a substantial increase in net migration, caused the rate of population increase to rise slightly to 1.66 per cent.

In the intercensal period 1971 to 1976, the average annual rate of increase from net migration was the lowest recorded this century and, combined with a low rate of natural increase, resulted in the average annual rate of increase being the lowest recorded since the first census was taken in 1828.

During the period 1976 to 1981, the average annual rate of increase nearly doubled the previous period's rate, reaching 1.42 per cent. This reflected the sustained increase in net migration during the period with the rate of natural increase remaining fairly constant.



DISTRIBUTION AND RELATIVE GROWTH OF POPULATION BY AREAS

Approximately 75 per cent of the population of New South Wales live within the Sydney Statistical Division and the Newcastle and Wollongong Statistical Districts. These areas contain the three principal cities of the State — Sydney (the State capital), Newcastle (172 kilometres north of Sydney), and Wollongong (83 kilometres south of Sydney). The average number of persons per square kilometre in New South Wales is 6.4. The density ranges from 6,849 persons per square kilometre in the Sydney suburban Municipality of Waverley, which is predominantly residential, to less than two persons per one hundred square kilometres in the unincorporated area of the Far West Division.

Details of the number of persons counted at the 1981 Census in urban centres, municipalities, shires and statistical areas are contained in the 1986 issue of the New South Wales Year Book.

CHARACTERISTICS OF THE POPULATION

Information relating to the age and sex distribution, marital status, birthplace, and religion of persons counted in New South Wales at the 1981 Census is in the 1986 issue of the New South Wales Year Book.

ABORIGINALS

Aboriginals have been enumerated at all population censuses, but the degree of coverage has varied substantially, improving progressively as the number of Aboriginals able to be contacted by census collectors has increased.

Following the repeal in 1967 of Section 127 of the Constitution of the Commonwealth of Australia, the requirement that "in reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted", was removed. Consequently, it is no longer necessary, for purposes of the Constitution, to identify aboriginal natives in population censuses. For general statistical purposes, however, the 1971 and 1976 Censuses continued the previous practice of seeking data relating to the racial origin of the population. For the 1971 and 1976 Censuses, the question on racial origin was re-designed and persons of mixed race were asked to indicate only one race — the race to which they considered themselves to belong. However, the question in the 1981 Census asked of each person whether they were of Aboriginal or Torres Strait Islander origin or not. Because of these changes, the data compiled for persons of Aboriginal descent at the 1971, 1976 and 1981 Censuses are not comparable with data compiled for earlier censuses.

The number of persons in New South Wales who identified themselves as being of Aboriginal and Torres Strait Islander origin were: 23,101 (in 1971), 40,450 (in 1976) and 35,367 (in 1981). Shown below is the age distribution of Aboriginals and Torres Strait Islanders as recorded at the 1981 Census.

Age Distribution of Aboriginals and Torres Strait Islanders, N.S.W., 30 June 1981

Age	*Males*	*Females*	*Persons*	*Age*	*Males*	*Females*	*Persons*
0- 4	2,289	2,195	4,483	*45-49*	555	584	1,137
5- 9	2,627	2,613	5,242	*50-54*	406	474	881
10-14	2,889	2,743	5,633	*55-59*	304	318	621
15-19	2,314	2,283	4,598	*60-64*	207	223	427
20-24	1,651	1,695	3,343	*65-69*	137	163	299
25-29	1,274	1,347	2,621	*70-74*	86	132	219
30-34	1,116	1,257	2,374	*75+*	82	127	209
35-39	873	948	1,818				
40-44	716	745	1,462	**Total**	**17,521**	**17,846**	**35,367**

For more details on the questions asked on this topic in recent Censuses, see the A.B.S. publication *Census 81: Aboriginals and Torres Strait Islanders* (Catalogue No. 2153.0).

INTERCENSAL ESTIMATES

The census is the most accurate source of information about population, and provides the basis of all subsequent population estimates. The starting points for estimates are the census counts, which are counts of people at their place of actual location within Australia on census night.

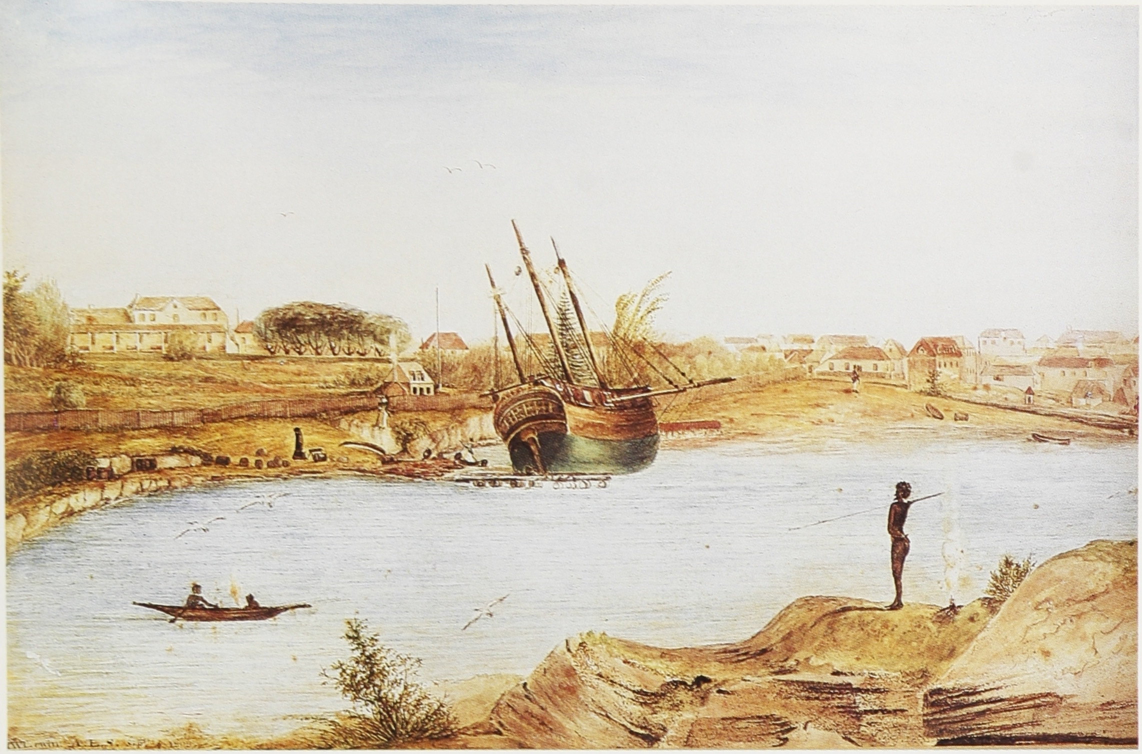
Until 1966, official population estimates were simply the census counts plus natural increase (the excess of births over deaths) and an estimate of net migration based on movement of population irrespective of the duration of that movement. From 1966 onwards, intercensal estimates of areas within Australia (i.e. States, local government areas, etc.) took internal movements into account only according to changes in place of usual residence. In the early 1970s there were large increases in both numbers and quarter-to-quarter fluctuations of short-term (i.e. periods of less than twelve months) movements overseas, and it was judged that the needs of most users of statistics would be met more adequately if the official population estimates excluded short-term movements. Therefore, from 1976, migration from overseas has been measured by net long-term and permanent overseas movements, and not total net overseas movements as previously.

At the time when the basis for intercensal estimates for the years 1976 to 1981 had to be decided, classifications by place of usual residence were not available from the census, nor were data on Australian residents temporarily overseas at the time of the census. Therefore, intercensal estimates for those years were made on a hybrid conceptual basis — the starting point was according to place of actual location on census night, but changes were estimated according to place of usual residence. Following the 1981 Census, a new conceptual basis was adopted for official population estimates. Population estimates are now compiled entirely according to the place of usual residence of the population and, as such, are referred to as *Estimated Resident Population.*

ESTIMATED RESIDENT POPULATION OF NEW SOUTH WALES

The estimated resident population of New South Wales at a census date is based on the census count (place of actual location) for the State with adjustments made by *(a)* excluding all overseas and interstate visitors, *(b)* including residents of the State who were counted interstate, *(c)* adjusting for census under-enumeration as measured by the post-enumeration survey (see section "Post-enumeration Survey" earlier in this chapter), and *(d)* including residents of the State who were temporarily overseas (i.e. for less than twelve months) on census night. Estimates of residents temporarily overseas are made from passenger cards which are completed by all persons arriving in or departing from Australia. Information on these cards enables an estimate to be made of residents temporarily overseas on census night according to their local government area, and therefore State, of usual residence.

Intercensal estimates of resident population will continue to be made by adding natural increase and estimated net migration on a quarterly basis. Accurate data as to natural increase are almost assured by the compulsory registration of births and deaths. A



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The head of Sydney Cove in 1808, a watercolour by John W. Lewin. On the eastern bank is a ship in the process of "heaving down", a technique in which a ship was pulled down low in the water on one side by ropes attached to its masts so as to elevate its keel for cleaning. In the top left corner is the original Government House, one of the first permanent constructions in the colony built by Governor Phillip in 1788. It was located on what is now the corner of Bridge and Phillip Streets.

The west side of Sydney Cove in 1810, painted by John Eyre. On the extreme left is the government granary with the military barracks behind it and the Governor's wharf in front. Also towards the left is St. Philip's Church which was begun in 1798 under Governor Hunter, consecrated in 1810 under Governor Macquarie, demolished in 1856. The gaol with its high stone wall is prominent below the left windmill. The Commissariat stores are shown under construction in front of the hospital buildings below the right windmill and on the extreme right is Campbell's store.

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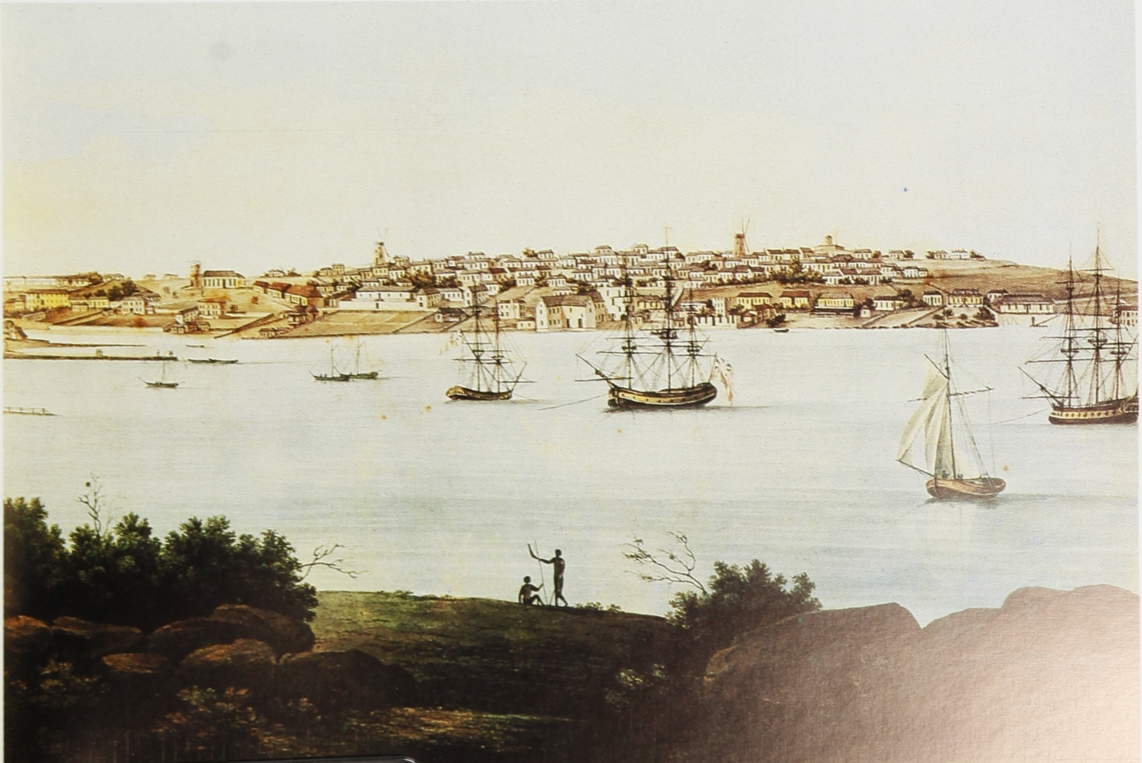
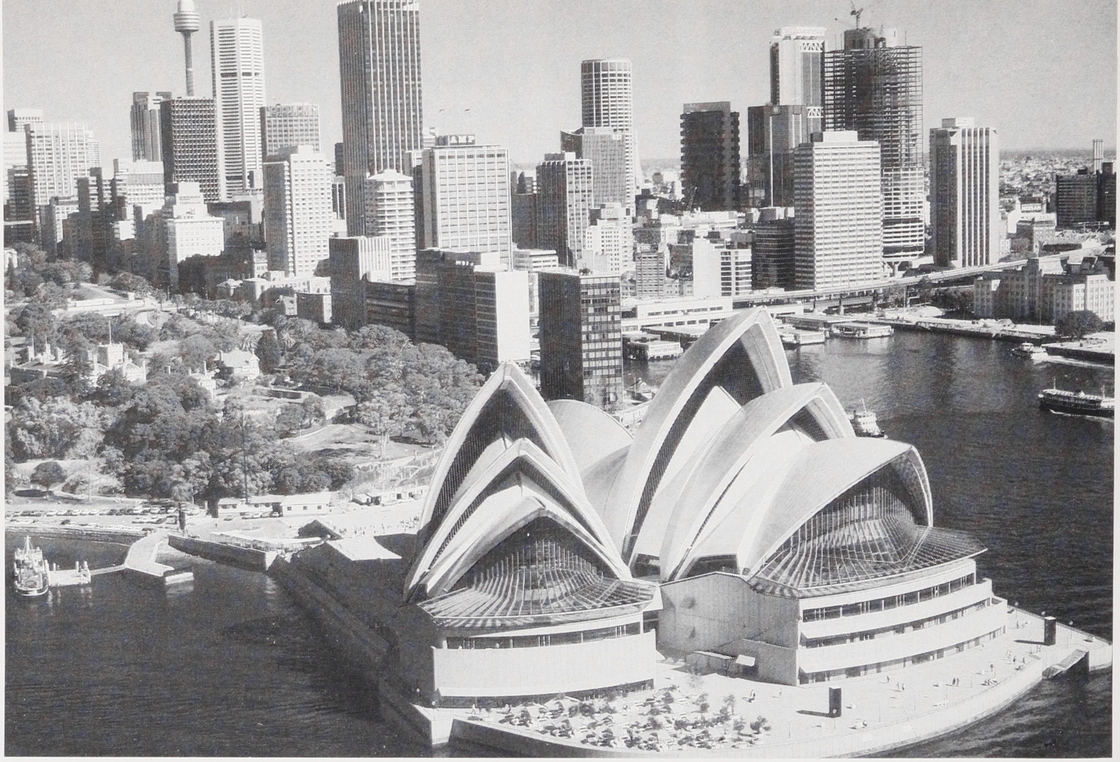


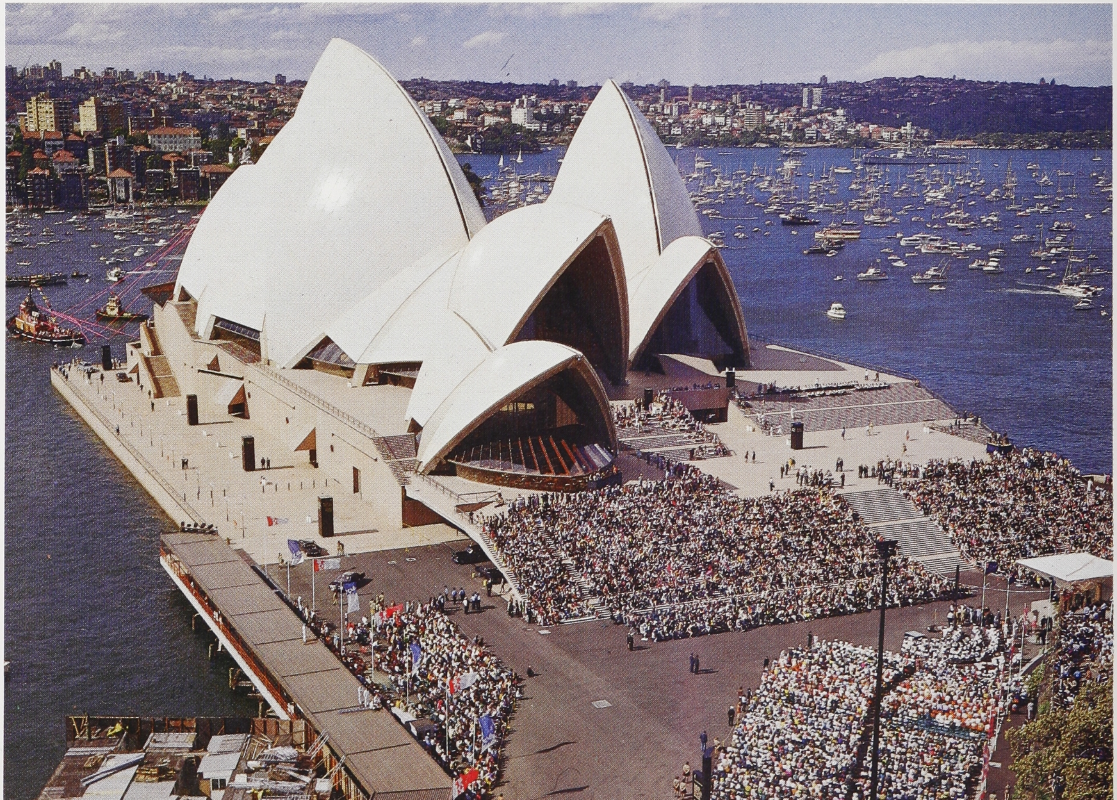


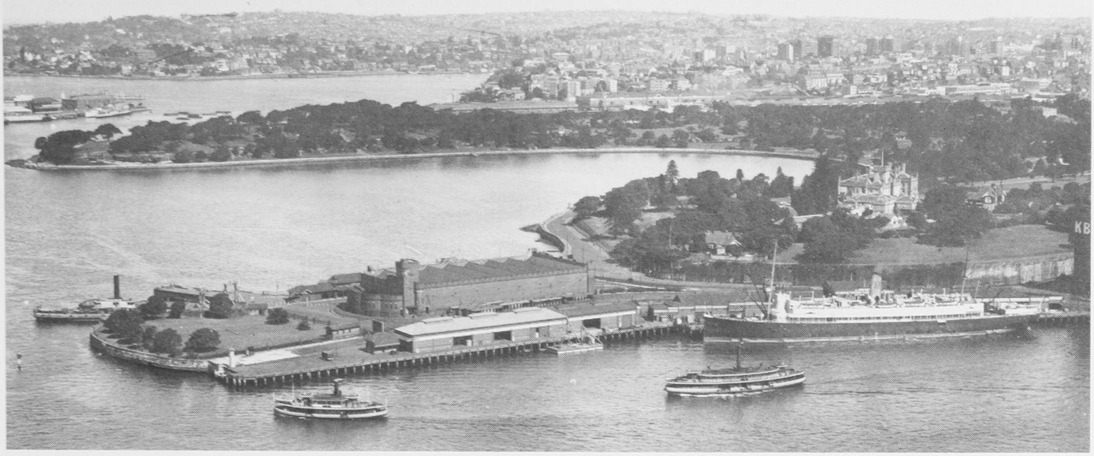
Department of Water Resources

The central business district of Sydney, in 1986. The sheds behind the Opera House are associated with improvement works to its walkway and road approaches and the replacement of the bitumen forecourt with granite. Also visible are the Grosvenor Place Building (architect Harry Seidler) under construction (right), Circular Quay and the Cahill Expressway (right), the Royal Botanic Gardens and Government House (left), the State Library of N.S.W. (extreme left), Sydney Tower (top left) and Farm Cove with the Man o'War Steps Wharf (bottom left).

The official opening of the Sydney Opera House by Her Majesty, Queen Elizabeth II, on 20 October 1973. A spectacular structure on Sydney Harbour, the Opera House took fourteen years to build at a cost of $100 million. Much of the cost was met by profits from the N.S.W. Government's Opera House lotteries which commenced in 1958 with a first prize of $200,000.

N.S.W. Government Printer



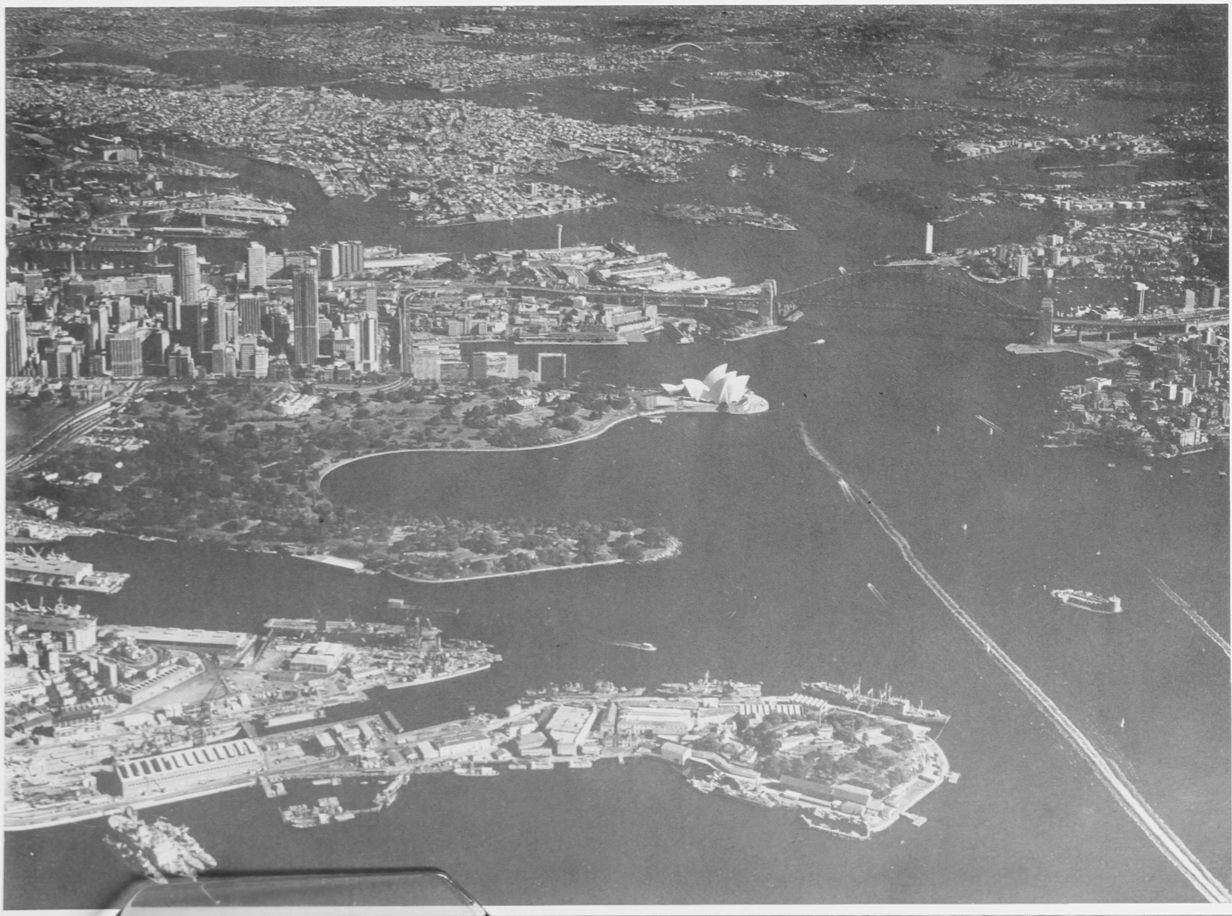


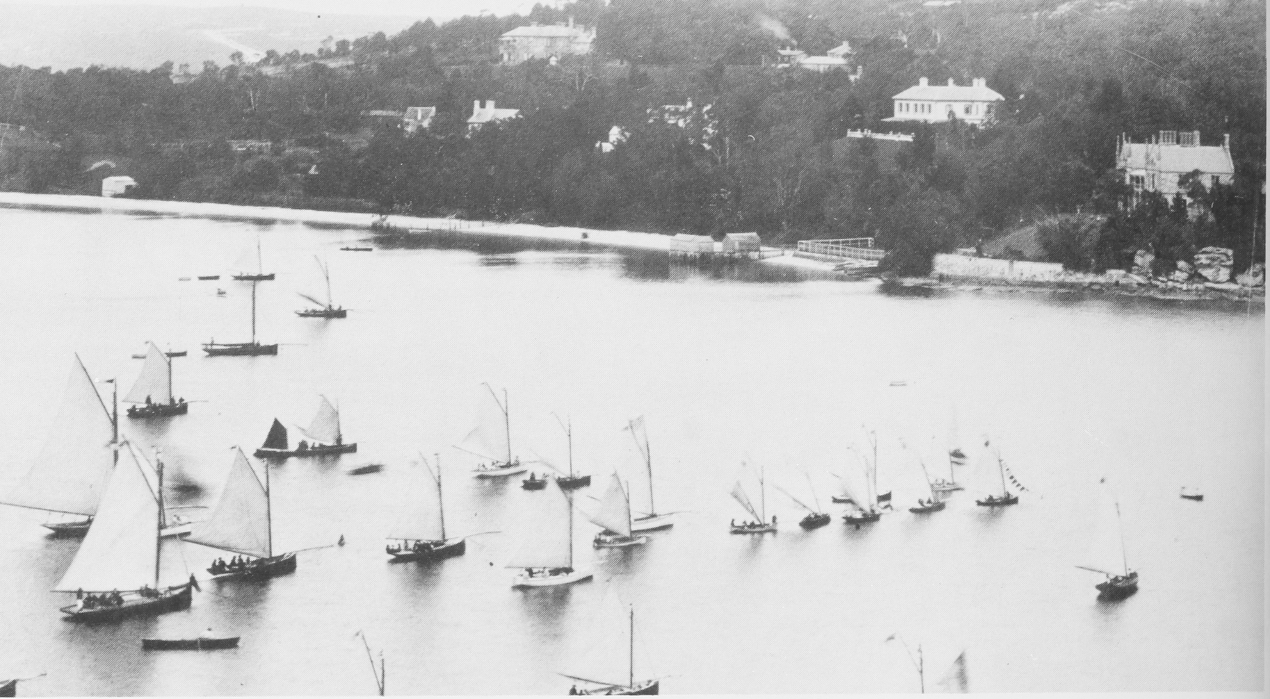
N.S.W. Government Printer

The site of the Opera House at Bennelong Point as it looked in November 1931. When Captain Arthur Phillip arrived at Port Jackson, Bennelong Point was a hilly sandstone outcrop, known as the Tarpeian Rock, separated from the main shore by a tidal channel. Between 1817 and 1819, under Governor Macquarie, the rocks were levelled, the channel filled with stone and a fortress, named Fort Macquarie, was designed and built by the then Government Architect, Francis Greenway. In 1902, the fortress was demolished and in its place, the State Government built a large red brick tram depot (photographed above) but the name of Fort Macquarie remained. This depot was demolished to make way for the foundations of the Opera House in 1959.

A view of Sydney Harbour in 1974. Visible are the Sydney Harbour Bridge, the Sydney Opera House, the Royal Botanic Gardens (left), Milson's Point and Kirribilli (extreme right), and Fort Denison (right), Sydney's first gaol, originally named Pinchgut. In the foreground are Woolloomooloo and Garden Island. Now a fully-equipped naval base joined to the mainland by successive reclamations (compare with photo above), Garden Island was originally cleared for a garden in 1788 but has also been used as a convalescent or quarantine station. Since the 1850's, when discussions commenced between the Government of N.S.W. and the British Admiralty regarding its use as a naval depot, the Island has been used for naval purposes. The Australian Government purchased it from the N.S.W. Government in 1945. In the background, the Gladesville Bridge crosses the Parramatta River providing a traffic route from north-western Sydney. The bridge, when opened in 1964, was the world's longest concrete single-arch span with a length of 305 metres.

Ern McQuillan





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Double Bay towards the end of the nineteenth century. Exclusive harbourside bays such as this were fashionable locations for regattas, races and anchorages during this period. In the background are some grand old harbour mansions — Cranbrook (centre), built in 1859, was formerly used as a residence for N.S.W. Governors until it was bought in 1917 for a private boys' school. Redleaf (right) was built in 1863 by William Walter, first commodore of the Royal Sydney Yacht Squadron, and since 1947 it has been used as the Woollahra Council Chambers. Gladswood House is on the extreme right. Photo by Charles Bayliss.

The arrival of the *Mariposa* at the overseas shipping terminal on 25th February, 1932. The *Mariposa* was an 18,000 ton liner built in 1931 by the American Matson Line. It was built to replace the company's older ships and, equipped with higher speeds, greater comfort and with U.S. Government subsidies, helped stifle British competition in the Pacific. The Sydney Harbour Bridge (behind) opened three weeks later on 19 March; construction had taken almost 9 years. Visible are some of the 96 locomotives which crowded the bridge before its opening in order to demonstrate to the public its strength and stability.

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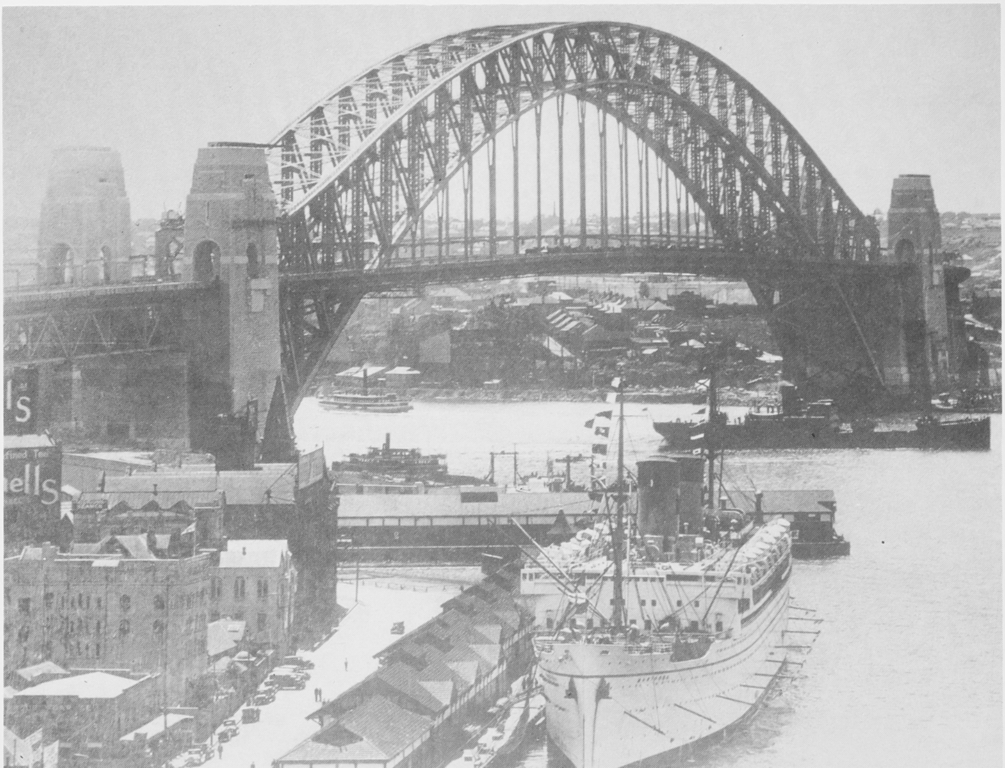
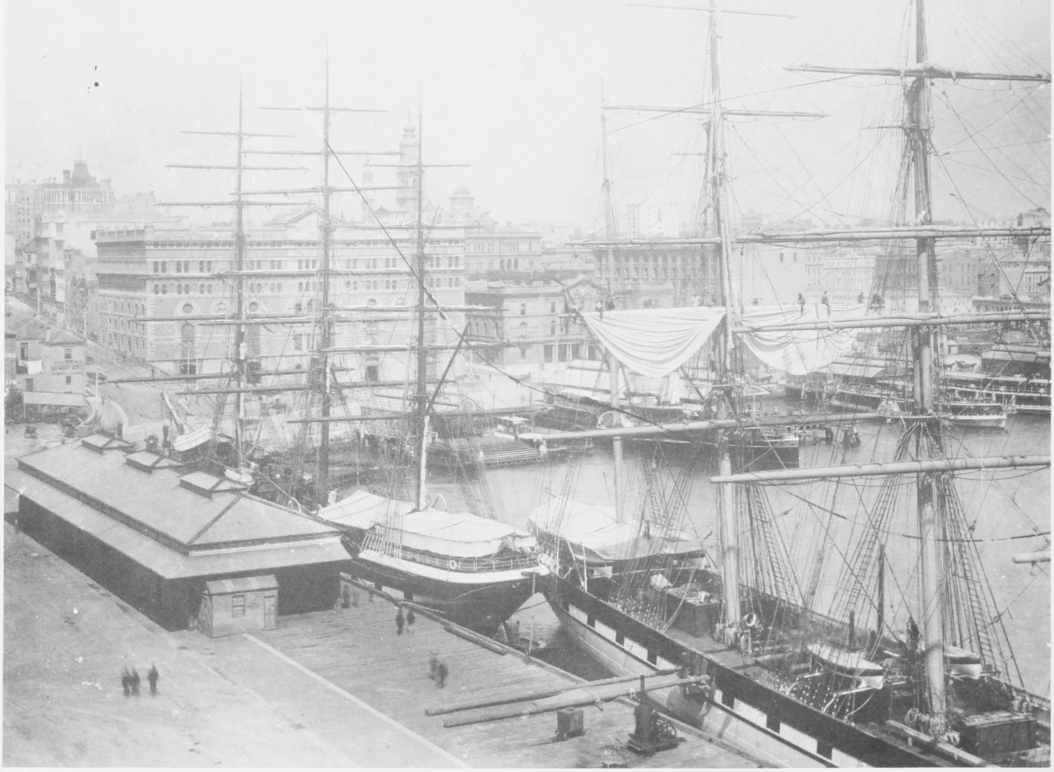


Australia is one of the keenest yachting nations in the world today with large fleets of racing and recreational yachts and sailing craft. The photograph (left) shows the annual Sydney to Hobart yacht race, as the yachts round South Head leaving Sydney Harbour. This event, now Australia's principal ocean race attracting at least eighty starters, begins on Boxing Day, and always attracts a large fleet of spectator craft. The first Sydney to Hobart yacht race was held in 1945. South Head protects the Harbour waters from ocean seas and swells as well as easterly gales and it still contains gun placements and underground ammunition chambers which were part of a strong coastal defence network in earlier years. The Hornby Light located on South Head, together with Macquarie Lighthouse just to the south, give navigators their bearings for the Harbour entrance.

Ern McQuillan

The N.S.W. cutter *Nocturne* (sail number 126) leading the 12 metre (38 foot) South Australian ketch *Ingrid* (SA 5) as the yachts set out from Sydney in the 1952-53 Sydney to Hobart yacht race. *Nocturne* was first across the finishing line and placed third on handicap. *Ingrid*, tenth across the line, took the first handicap prize.

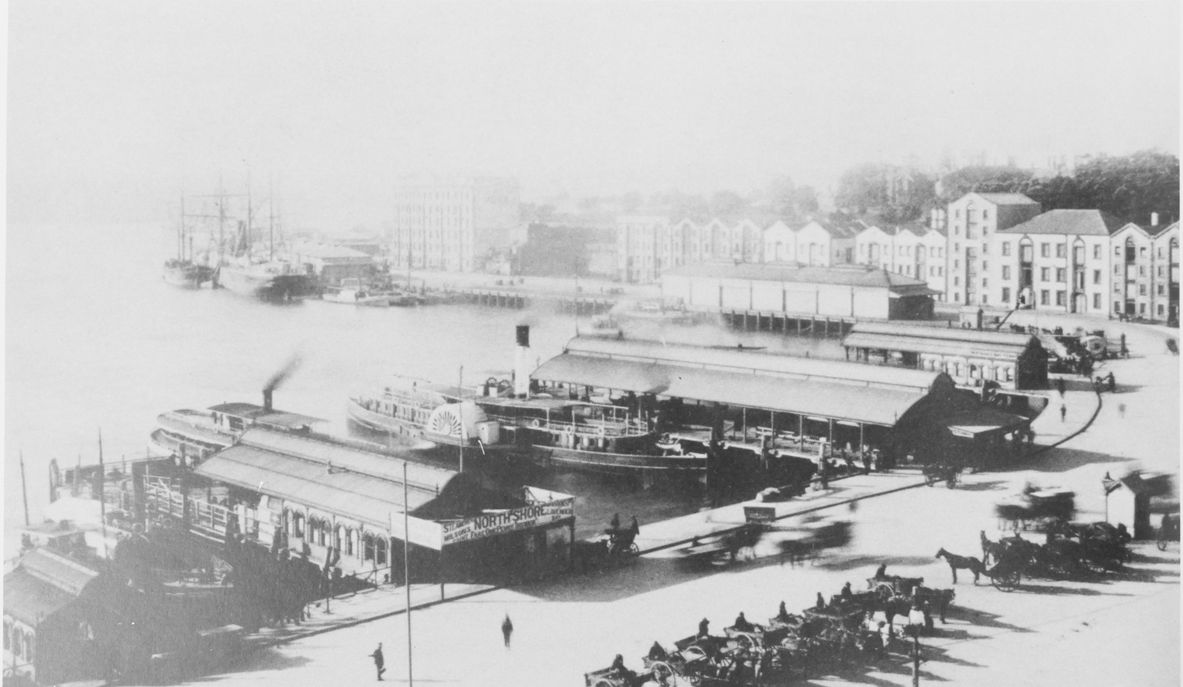
Promotion Australia



N.S.W. Government Printer

Circular Quay about 1892. The changes which have taken place at Sydney Cove since Governor Phillip's arrival in 1788 have generally reflected the social and economic development of Sydney. Wharves were built during the first few decades of the settlement and work commenced in the 1830's on major foreshore reclamation works, including construction of a semi-circular quay which was extended in the 1850's. The area became known as Circular Quay, a derivation from semi-circular quay. The photo above shows the Mort and Co. wool store with the Customs House, built in 1885, to the right. The photo below, taken by Kerry and Co. at about the same time, shows wool and bond stores on the eastern side of the Quay with the Orient Company Wharf to the north. A gate and fence on the right indicate that this area was still primarily a wharf, rather than a roadway. From the 1880's, cargo ships which had generally used the western side of the Quay, and the wool fleet from the eastern side, began to moor at facilities in Darling Harbour and Walsh Bay, and ferry wharves appeared at the head of the Quay. The main routes were to Milson's Point, Manly, Watsons Bay, Mosman and Neutral Bay. Horse-drawn vehicles, such as those pictured below, were later to be replaced by other forms of transport as the Quay assumed its present role as a major transport interchange for road, rail and ferry passengers.

Mitchell Library, State Library of New South Wales



comprehensive system of recording overseas arrivals and departures is maintained (see subdivision "Overseas Arrivals and Departures" later in this chapter), but complete records of interstate movements are not available and figures of net migration are therefore approximate. This net migration component is based on *(a)* statistics of permanent and long-term overseas migration (i.e. movements of one year or longer) by State of stay or residence and *(b)* since July 1979, estimates of interstate migration derived from transfers of residence based on family allowances and from data obtained from the annual Internal Migration Survey as described later in this chapter. Intercensal estimates are subject to revision when the results of the next census become available.

In order that some comparison over time could be made on the new usual residence concept, a quarterly time series on a consistent usual residence basis has been compiled for Australia by State and Territory back to 1971. The estimated resident population of New South Wales at 30 June and 31 December for the years 1975 to 1986 is shown in the following table.

Estimated Resident Population of New South Wales

	At 30 June			*At 31 December*		
Year	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
1975	2,467,800	2,464,200	4,932,000	2,472,500	2,474,900	4,947,400
1976	2,477,000	2,482,600	4,959,600	2,485,000	2,493,500	4,978,500
1977	2,496,100	2,505,800	5,001,900	2,508,400	2,520,500	5,029,000
1978	2,519,800	2,534,000	5,053,800	2,531,500	2,547,900	5,079,400
1979	2,546,900	2,564,300	5,111,100	2,560,900	2,579,300	5,140,200
1980	2,576,600	2,594,900	5,171,500	2,593,300	2,612,100	5,205,400
1981	2,608,400	2,626,500	5,234,900	2,625,200	2,643,300	5,268,400
1982	2,645,500	2,662,500	5,307,900	2,657,700	2,675,800	5,333,600
1983	2,671,200	2,689,200	5,360,400	2,681,800	2,701,500	5,383,300
1984	2,696,000	2,716,100	5,412,000	2,711,000	2,731,400	5,442,400
1985	2,728,400	2,748,500	5,476,900	p2,743,900	p2,763,600	p5,507,500
1986p	2,762,100	2,781,400	5,543,500	n.y.a.	n.y.a.	n.y.a.

SOURCES OF INCREASE IN POPULATION

The next two tables show the extent to which natural increase and net migration contributed to the growth of the population in New South Wales during each intercensal period since 1861 and in each of the last six years. Figures for natural increase shown in the tables for the 1966-1971 intercensal period and earlier relate to births and deaths registered in New South Wales and therefore include births to and deaths of residents of other States which occurred in New South Wales, but they exclude births to and deaths of residents of New South Wales which occurred in other States. Figures for later periods have been compiled according to State of usual residence rather than State of registration. Differences caused by this change do not significantly affect comparisons. The "Other" component of change figures given in the tables predominantly relates to the estimated net migration (excess of overseas and interstate arrivals over departures) together with any adjustments made resulting from incomplete recording of other components of change.

Natural increase (including the natural increase of migrants) has been responsible for about 70 per cent of the growth of population in New South Wales since 1861. The marked decline in the rate of natural increase since late last century has been due mainly to a fall in the birth rate. The increase in the birth rate during World War II and in the post-war years led to a higher rate of natural increase, which remained comparatively steady at about 12 per 1,000 of mean population until 1961. The steady decline in the rate of natural increase between 1961 and 1966 reflected a generally steady fall in the birth rate (from 22.07 per 1,000 in 1961 to 18.35 per 1,000 in 1966). However, there was a steady rise in the birth rate from 1967 (18.35) to 1971 (21.04), and the rate of natural increase rose to 12.13 in 1971. From 1971 to 1979, the birth rate steadily declined to 15.16 in 1979 — the lowest ever recorded. From 1979 to 1982, the downward trend in the birth rate was reversed and in 1982 it was 15.82. Since 1982, the birth rate has again declined to 15.22 and 15.23 in 1984 and 1985 respectively. During the period from 1971 to 1976, the rate of natural increase also declined steadily to 7.36 in 1976, but since then has been relatively stable.

Migration has added over a million persons to the population of the State during the last hundred years, but this addition to the population has been erratic. Since the net losses in 1975 and 1976, which were mainly due to New South Wales residents moving to other States and a fall in the number of overseas migrants, there has been a net gain each year which, in magnitude, has fluctuated from year to year. Details of overseas arrivals and departures are given later in this chapter.

Elements of Population Increase *(a)*: Natural Increase and Net Migration, N.S.W.

	Components of change					
	Natural increase (b)		*Other (c)*		*Total*	
Period	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
Intercensal Period *(d)* —						
1861-1871	48,002	57,092	28,352	18,692	76,354	75,784
1871-1881	64,076	75,646	71,293	35,812	135,369	111,458
1881-1891	96,176	111,575	103,279	66,282	199,455	177,857
1891-1901	106,053	122,038	(-)5,455	5,582	100,598	127,620
1901-1911	117,769	132,071	29,665	11,874	147,434	143,945
1911-1921	149,619	169,326	64,184	70,508	213,803	239,834
1921-1933	178,628	198,693	68,342	54,813	246,970	253,506
1933-1947	156,254	195,487	17,486	14,764	173,740	210,251
1947-1954	133,448	148,743	95,201	61,299	228,649	210,042
1954-1961	150,250	165,876	101,799	75,559	252,049	241,435
1961-1966	105,327	114,947	47,625	51,501	152,952	166,448
1966-1971	102,744	113,723	77,814	68,998	180,558	182,721
1971-1976	110,546	120,057	(—)7,400	10,800	103,200	130,900
1976-1981	91,270	100,652	40,100	43,300	131,400	143,900
Year *(e)*: 1980	18,823	20,554	13,600	12,200	32,400	32,800
1981	20,181	21,676	11,700	9,500	31,900	31,200
1982	20,044	21,417	12,500	11,200	32,500	32,600
1983	20,820	21,964	3,200	3,700	24,000	25,700
1984	*(f)*19,905	*(f)*21,231	9,300	8,700	29,200	29,900
1985p	*(f)*19,959	*(f)*21,131	13,000	11,100	32,900	32,200

(a) Full-blood Aboriginals are excluded before 1961-66 in the figures for intercensal periods. Estimates of the total increase (and consequently net migration) since 1971 are based on the new concept of Estimated Resident Population. *(b)* Excess of live births over deaths — see text preceding table. *(c)* Excess of overseas and interstate arrivals over departures, excluding for years subsequent to 1970, net overseas short-term (less than one year) movement. Includes adjustments for intercensal discrepancy for the period 1971 to 1981. The sign (—) denotes an excess of departures over arrivals. *(d)* For actual census dates see the first table in this chapter. *(e)* Year ended 31 December. *(f)* Imputed — see Chapter 4 "Vital Statistics".

Population Increase *(a):* Numerical and Average Annual Rate, N.S.W.

	Numerical increase			*Average annual rate of increase*		
	Components of change			*Components of change*		
Period	*Natural increase (b)*	*Other (c)*	*Total*	*Natural increase (d)*	*Other (d)*	*Total (e) (per cent)*
Intercensal Period *(f)* —						
1861-1871	105,094	47,044	152,138	25.17	11.27	3.67
1871-1881	139,722	107,105	246,827	22.95	17.59	4.07
1881-1891	207,751	169,561	377,312	22.05	18.00	4.16
1891-1901	228,091	127	228,218	18.17	0.01	1.86
1901-1911	249,840	41,539	291,379	16.65	2.77	1.97
1911-1921	318,945	134,692	453,637	16.87	7.13	2.46
1921-1933	377,321	123,155	500,476	12.94	4.22	1.76
1933-1947	351,741	32,250	383,991	9.04	0.83	0.99
1947-1954	282,191	156,500	438,691	12.53	6.95	1.98
1954-1961	316,126	177,358	493,484	12.33	6.92	1.94
1961-1966	220,274	99,126	319,400	10.80	4.86	1.58
1966-1971	216,467	146,812	363,279	9.81	6.65	1.66
1971-1976	230,603	3,500	234,100	9.48	0.14	0.97
1976-1981	191,922	83,400	275,300	7.55	3.28/	1.09
Year *(g)*: 1980	39,377	25,800	65,200	7.61	4.99	1.27
1981	41,857	21,200	63,100	7.99	4.05	1.21
1982	41,461	23,700	65,100	7.82	4.46	1.24
1983	42,784	6,900	49,700	7.98	1.29	0.93
1984	*(h)*41,136	18,000	59,100	*(h)*7.60	3.32	1.10
1985p	*(h)*41,090	24,100	65,100	*(h)*7.50	4.39	1.20

(a) See footnote *(a)* in the preceding table. *(b)* See footnote *(b)* in the preceding table. *(c)* See footnote *(c)* in the preceding table. *(d)* Average annual numerical increase per 1,000 of mean estimated population during the period. *(e)* Average annual compound rate of total increase in population during the period. *(f)* See footnote *(d)* in the preceding table. *(g)* Year ended 31 December. *(h)* See footnote *(f)* in the preceding table.

DISTRIBUTION OF ESTIMATED RESIDENT POPULATION

New South Wales is divided into 12 Statistical Divisions and each of these Divisions is further divided into a second tier of statistical areas comprising Statistical Districts and Statistical Subdivisions. These statistical areas consist, for the most part, of aggregations of local government areas.

Estimates of resident population for local government areas at a census date are made on a similar basis to that used for the State. The census count (place of actual location) for each local government area is adjusted by *(a)* excluding all visitors who normally reside overseas, interstate or in other local government areas in the State, *(b)* including residents who were counted interstate or in other local government areas in the State, *(c)* adding an estimate for census under-enumeration using adjustment factors by sex and age for the Sydney Statistical Division and the remainder of the State, as provided by the post-enumeration survey conducted after the census, and *(d)* including residents who were temporarily overseas on census night. Because this concept of estimated resident population was first adopted as from the 1981 Census, estimates on the same basis using 1976 Census counts were compiled for comparability purposes together with estimates for the intercensal years between 1976 and 1981.

Intercensal estimates of the resident population of each local government area are made annually, as at 30 June, by taking into consideration the number of births to and deaths of residents of the local government area as well as other available indicators of population change.

The estimated resident population of the Statistical Divisions and the Newcastle and Wollongong Statistical Districts at 30 June 1981 and 1986 are shown in the next table. In addition, the components of change in population between these dates are shown. The natural increase in each Division and District has been subtracted from the total change in population during the period and the difference, shown as "Other", predominantly relates to net migration although there may be a small residual element resulting from incomplete recording of other components of change.

Estimated Resident Population and Components of Change in Population of Statistical Areas, 1981 and 1986 *(a)*

Statistical area	*Estimated resident population at 30 June 1981*	*Components of change, 1981-86*			*Estimated resident population at 30 June 1986 (prelim.)*	*Average annual rate of change (d) (per cent) (prelim.)*
		Natural increase (b)	*Other (c)*	*Total change*		
Statistical Divisions —						
Sydney	3,279,500	121,966	29,050	151,000	3,430,550	0.90
Hunter —						
Newcastle SSD	403,600	13,548	12,100	25,650	429,250	1.24
Hunter SD Bal	69,300	3,194	10,100	13,300	82,600	3.57
Total, Hunter	*472,900*	*16,742*	*22,200*	*38,950*	*511,850*	*1.60*
Illawarra —						
Wollongong SSD	231,400	11,141	(—)4,950	6,200	237,600	0.53
Illawarra SD Bal	73,800	3,110	15,200	18,300	92,100	4.53
Total, Illawarra	*305,200*	*14,251*	*10,250*	*24,500*	*329,700*	*1.56*
Richmond-Tweed	132,350	5,791	20,100	25,900	158,250	3.64
Mid-North Coast	176,500	7,063	30,250	37,300	213,800	3.91
Northern	178,250	8,214	(—)6,150	2,050	180,350	0.23
North Western	108,550	5,699	(—)1,700	4,000	112,600	0.73
Central West	164,900	7,290	(—)3,100	4,200	169,050	0.50
South Eastern	139,200	6,183	7,450	13,650	152,850	1.89
Murrumbidgee	144,300	7,204	(—)5,100	2,100	146,400	0.29
Murray	100,800	4,825	1,300	6,150	106,950	1.19
Far West	32,400	1,113	(—)2,350	(—)1,250	31,150	(—)0.77
Total, New South Wales	**5,234,900**	**206,341**	**102,200**	**308,550**	**5,543,500**	**1.15**

(a) On the basis of boundaries as delimited at 30 June 1986. *(b)* Excess of live births to residents over deaths of residents of the statistical area. *(c)* Predominantly relates to net migration — see text in preceding subdivision. *(d)* Average annual compound rate of total change in population during the period 1981 to 1986.

NOTE. The sign (—) denotes a decrease.

The estimated resident populations from 30 June 1981 to 1986 for local government areas in Sydney Statistical Division are shown in the following table.

Estimated Resident Population of Local Government Areas in Sydney Statistical Division, 1981 to 1986 *(a)*

City (C), Municipality (M) or Shire (S)	*Estimated resident population at 30 June*						*Average annual rate of change (b) (per cent) (prelim.)*
	1981	*1982*	*1983*	*1984*	*1985*	*1986p*	
Ashfield (M)	42,300	41,900	41,650	41,350	41,250	41,000	(—)0.62
Auburn (M)	47,200	47,100	47,100	46,900	46,800	46,950	(—)0.11
Bankstown (C)	156,700	155,800	154,400	153,600	153,000	152,800	(—)0.50
Baulkham Hills (S)	95,300	96,950	98,250	99,950	102,500	105,200	2.00
Blacktown (C)	185,400	187,450	189,700	192,200	195,500	199,700	1.50
Blue Mountains (C)	57,150	59,200	60,600	62,200	64,000	65,700	2.83
Botany (M)	35,800	35,650	35,300	35,100	35,000	35,150	(—)0.36
Burwood (M)	29,300	29,200	29,050	28,950	28,850	28,800	(—)0.34
Camden (M)	17,450	18,200	18,400	18,800	19,500	19,900	2.66
Campbelltown (C)	93,250	98,800	105,500	112,000	118,700	124,800	6.00
Canterbury (M)	130,250	129,350	128,850	128,000	127,700	127,650	(—)0.40
Concord (M)	24,050	23,950	23,850	23,750	23,750	23,650	(—)0.33
Drummoyne (M)	32,050	31,900	31,750	31,700	31,600	31,500	(—)0.33
Fairfield (C)	132,650	136,750	140,550	143,500	147,000	151,300	2.67
Gosford (C)	96,350	101,000	104,000	108,000	112,350	116,450	3.86
Hawkesbury (S)	37,750	39,200	40,250	41,250	42,850	44,500	3.35
Holroyd (M)	82,300	81,950	81,450	81,050	80,900	81,100	(—)0.29
Hornsby (S)	113,150	114,100	115,200	116,400	117,500	118,800	0.98
Hunter's Hill (M)	12,400	12,300	12,150	12,000	11,950	11,900	(—)0.87
Hurstville (M)	67,000	66,700	66,350	66,000	65,800	66,000	(—)0.30
Kogarah (M)	47,700	47,550	47,550	47,450	47,350	47,200	(—)0.21
Ku-ring-gai (M)	104,400	104,300	104,250	104,050	104,100	104,250	(—)0.03
Lane Cove (M)	29,700	29,450	29,250	28,950	29,050	29,200	(—)0.34
Leichhardt (M)	58,750	58,300	58,000	57,400	57,000	56,900	(—)0.64
Liverpool (C)	94,900	94,900	95,000	94,700	95,100	95,700	0.17
Manly (M)	37,800	37,650	37,450	37,150	37,000	36,800	(—)0.53
Marrickville (M)	85,700	84,850	84,350	83,650	83,050	82,750	(—)0.70
Mosman (M)	27,300	27,050	26,900	26,700	26,500	26,350	(—)0.71
North Sydney (M)	49,800	49,700	49,700	49,600	49,650	49,750	(—)0.02
Parramatta (C)	133,700	133,400	132,700	131,800	131,500	131,700	(—)0.30
Penrith (C)	110,800	118,050	124,450	131,000	137,400	142,800	5.20
Randwick (M)	119,300	118,450	117,550	116,600	115,700	114,850	(—)0.76
Rockdale (M)	86,000	85,500	85,000	84,650	84,300	84,050	(—)0.46
Ryde (M)	90,900	90,750	90,700	90,600	90,650	91,000	0.02
Strathfield (M)	26,650	26,600	26,550	26,550	26,600	26,550	(—)0.08
Sutherland (S)	170,150	171,550	172,750	174,250	176,000	177,700	0.87
Sydney (C)	78,950	79,450	79,550	79,400	79,700	80,200	0.31
Warringah (S)	178,150	178,100	178,100	177,900	178,100	178,400	0.03
Waverley (M)	63,450	63,550	63,250	62,900	62,600	62,200	(—)0.40
Willoughby (M)	53,250	53,200	53,050	52,950	53,000	52,950	(—)0.11
Wollondilly (S)	20,300	21,350	22,000	22,500	23,600	24,950	4.26
Woollahra (M)	53,750	53,750	53,550	53,150	53,000	52,900	(—)0.32
Wyong (S)	70,400	75,600	79,000	82,000	85,300	88,550	4.69
Total, Sydney Statistical Division	**3,279,500**	**3,310,450**	**3,334,950**	**3,358,550**	**3,392,700**	**3,430,550**	**0.90**

(a) On the basis of boundaries as delimited at 30 June 1986. *(b)* Average annual compound rate of total change in population during the period 1981 to 1986.
NOTE. The sign (—) denotes a decrease.

Estimated Resident Population of Larger Shires *(a)* in N.S.W. outside Sydney Statistical Division, 1981 to 1986 *(b)*

Shire	*Estimated resident population at 30 June*						*Average annual rate of change (c) (per cent) (prelim.)*
	1981	*1982*	*1983*	*1984*	*1985*	*1986p*	
Tweed	37,150	40,750	42,500	43,850	45,100	46,550	4.61
Coffs Harbour	34,000	37,000	39,000	41,100	43,000	44,450	5.50
Port Stephens	28,900	31,200	32,400	33,700	35,200	36,450	4.76
Wingecarribee	25,200	26,300	27,050	28,100	29,200	30,400	3.82
Ballina	19,400	20,800	21,700	22,700	23,800	24,750	4.99
Bega Valley	20,100	20,850	21,300	21,850	22,450	23,150	2.86
Kempsey	19,550	20,250	21,050	21,950	22,600	23,000	3.32
Griffith	21,150	21,350	21,500	21,600	21,750	21,850	0.63
Eurobodalla	16,000	17,350	18,400	19,300	20,350	21,350	5.91
Great Lakes	16,900	17,900	18,750	19,600	20,350	21,150	4.59
Byron	14,850	16,250	17,200	18,200	19,150	20,000	6.13
Singleton	15,250	16,550	17,050	17,900	18,550	18,950	4.44
Moree Plains	17,250	17,400	17,500	17,650	17,750	17,900	0.75
Muswellbrook	13,200	14,400	15,300	15,900	16,400	16,650	4.72
Inverell	16,100	16,000	16,050	16,050	16,100	16,050	(—)0.06
Narrabri	16,000	16,050	16,100	16,100	16,100	16,000	0.05
Mudgee	13,500	13,950	14,300	14,700	15,050	15,400	2.63
Nambucca	11,550	12,000	12,600	13,200	13,950	14,600	4.75
Parkes	14,850	14,800	14,800	14,700	14,700	14,600	(—)0.35
Gunnedah	13,250	13,250	13,200	13,050	13,050	13,050	(—)0.30
Tumut	11,850	11,950	12,000	12,050	12,050	12,050	0.39
Cowra	11,750	11,700	11,700	11,700	11,650	11,650	(—)0.21
Maclean	9,650	10,050	10,400	10,800	11,250	11,650	3.83
Parry	10,650	10,900	11,050	11,150	11,300	11,450	1.46
Cabonne	11,900	11,850	11,750	11,600	11,550	11,400	(—)0.89
Leeton	11,300	11,300	11,300	11,350	11,350	11,350	0.05
Forbes	11,300	11,350	11,350	11,350	11,300	11,300	(—)0.04
Young	11,050	11,100	11,100	11,100	11,150	11,200	0.25
Bellingen	9,050	9,500	9,750	9,950	10,300	10,600	3.20
Scone	8,500	8,950	9,250	9,500	9,700	9,900	3.05
Cooma-Monaro	9,250	9,350	9,400	9,450	9,550	9,650	0.79
Kyogle	9,150	9,200	9,250	9,350	9,450	9,600	1.01
Wellington	9,050	9,000	8,950	8,950	8,900	8,850	(—)0.47
Lachlan	8,750	8,650	8,650	8,600	8,600	8,550	(—)0.39
Cootamundra	8,550	8,500	8,500	8,500	8,500	8,450	(—)0.21
Richmond River	6,900	7,150	7,250	7,500	7,750	8,000	3.04
Bland	8,150	8,100	8,100	8,100	8,000	7,950	(—)0.47
Berrigan	7,650	7,700	7,700	7,750	7,850	7,900	0.70
Yass	7,400	7,450	7,500	7,600	7,700	7,800	1.03
Corowa	6,350	6,550	6,750	6,950	7,200	7,500	3.33
Narrandera	7,700	7,650	7,600	7,550	7,500	7,450	(—)0.71
Walgett	7,500	7,450	7,450	7,450	7,450	7,400	(—)0.21
Wentworth	7,100	7,150	7,200	7,250	7,300	7,400	0.89
Coonabarabran	7,300	7,300	7,250	7,250	7,200	7,200	(—)0.22
Tenterfield	6,750	6,700	6,700	6,700	6,700	6,700	(—)0.27
Temora	6,700	6,700	6,650	6,600	6,600	6,650	(—)0.27
Narromine	6,650	6,600	6,600	6,550	6,550	6,500	(—)0.52
Dungog	6,100	6,200	6,250	6,250	6,300	6,400	0.84
Blayney	6,350	6,300	6,250	6,200	6,150	6,100	(—)0.86
Yarrowlumla	4,450	4,750	5,000	5,300	5,650	6,000	6.18
Coonamble	6,000	6,000	6,000	5,950	5,950	5,950	(—)0.17
Cobar	5,400	5,950	6,000	5,900	5,900	5,900	1.75
Hume	4,900	5,050	5,150	5,300	5,450	5,650	2.92
Junee	5,850	5,800	5,750	5,700	5,700	5,650	(—)0.69
Uralla	5,350	5,400	5,400	5,450	5,450	5,550	0.70
Quirindi	5,500	5,550	5,500	5,450	5,450	5,400	(—)0.33
Wakool	5,200	5,250	5,200	5,200	5,200	5,200	0.04
Gilgandra	5,050	5,050	5,050	5,050	5,050	5,050	0.16

(a) Shires with an estimated resident population at 30 June 1986 of 5,000 or more, in descending order of population. *(b)* On the basis of boundaries as delimited at 30 June 1986. *(c)* Average annual compound rate of total change in population during the period 1981 to 1986.
NOTE. The sign (—) denotes a decrease.

The table shown above and the following table show the estimated resident population for the larger shires and all municipalities in the State but outside of the Sydney Statistical Division.

Estimated Resident Population of Municipalities in N.S.W. outside Sydney Statistical Division, 1981 to 1986 *(a)*

City (c) or Municipality (M)	*Estimated resident population at 30 June*						*Average annual rate of change (b) (per cent) (prelim.)*
	1981	*1982*	*1983*	*1984*	*1985*	*1986p*	
Albury (C)	37,350	38,100	38,650	39,150	39,800	40,400	1.58
Armidale (C)	19,350	19,400	19,500	19,600	19,800	20,000	0.65
Bathurst (C)	23,050	23,550	24,250	24,900	25,700	26,250	2.64
Broken Hill (C)	27,850	27,700	27,400	27,200	26,950	26,650	(—)0.86
Casino (M)	10,400	10,400	10,450	10,500	10,600	10,650	0.48
Cessnock (C)	40,000	40,900	41,550	42,100	42,700	43,200	1.54
Deniliquin (M)	7,750	7,800	7,850	7,900	7,950	8,000	0.66
Dubbo (C)	28,900	29,350	29,900	30,500	31,200	31,850	1.96
Glen Innes (M)	6,200	6,200	6,200	6,250	6,250	6,250	0.03
Goulburn (C)	22,100	22,250	22,400	22,450	22,650	22,800	0.61
Grafton (C)	17,200	17,200	17,300	17,350	17,450	17,500	0.39
Greater Lithgow (C)	20,500	20,850	21,000	21,200	21,450	21,750	1.19
Greater Taree (C)	32,000	33,100	33,950	34,950	35,950	36,850	2.86
Hastings (M)	34,300	36,950	38,250	40,050	41,900	43,500	4.88
Kiama (M)	11,800	12,450	12,950	13,400	13,950	14,450	4.13
Lake Macquarie (C)	153,650	156,950	159,000	161,000	162,800	165,300	1.47
Lismore (C)	34,550	35,500	36,250	37,050	37,950	38,750	2.32
Maitland (C)	41,300	42,350	43,350	44,550	45,500	46,250	2.29
Newcastle (C)	139,750	139,800	139,400	138,800	138,500	138,100	(—)0.24
Orange (C)	31,350	31,750	31,950	32,200	32,450	32,800	0.91
Queanbeyan (C)	20,050	20,150	20,450	21,000	21,650	22,550	2.38
Shellharbour (M)	43,500	44,350	45,200	46,000	46,700	47,350	1.71
Shoalhaven (C)	48,600	51,750	54,350	56,600	59,100	61,700	4.89
Tamworth (C)	32,400	32,950	33,100	33,350	33,650	33,900	0.91
Wagga Wagga (C)	48,700	48,950	49,350	49,650	50,100	50,900	0.89
Wollongong (C)	176,100	176,850	176,850	176,500	176,200	175,800	(—)0.03

(a) On the basis of boundaries as delimited at 30 June 1986. *(b)* Average annual compound rate of total change in population during the period 1981 to 1986.
NOTE. The sign (—) denotes a decrease.

MEAN ESTIMATED RESIDENT POPULATION

Mean or average population estimates are calculated for a given period to provide a basis to which events occurring throughout that period may be related. Birth rates, for example, are calculated by relating the number of births occurring in a year to the mean population of that year. The mean estimated resident populations of the State for the last six calendar and financial years are shown in the next table.

Mean Estimated Resident Population, Calendar and Financial Years

Year	*Year ended 30 June*			*Year ended 31 December*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
1981	2,593,800	2,612,100	5,205,800	2,609,700	2,627,600	5,237,400
1982	2,626,200	2,643,800	5,270,000	2,643,800	2,661,200	5,305,100
1983	2,658,900	2,676,300	5,335,200	2,671,300	2,689,400	5,360,700
1984	2,682,900	2,702,100	5,385,000	2,696,200	2,716,100	5,412,400
1985	2,712,000	2,732,300	5,444,300	p2,728,100	p2,748,100	p5,476,200
1986p	2,744,700	2,764,200	5,508,900	n.y.a.	n.y.a.	n.y.a.

ESTIMATED RESIDENT POPULATION OF STATES AND CAPITAL CITIES

The estimated resident population of each of the Australian States and Territories for the last six years is shown in the following table.

Estimated Resident Population of Australian States and Territories

State or Territory	*At 30 June* *1981*	*1982*	*1983*	*1984*	*1985*	*1986p*
	Estimated resident population					
New South Wales	**5,234,900**	**5,307,900**	**5,360,400**	**5,412,000**	**5,476,900**	**5,543,500**
Victoria	3,946,900	3,994,100	4,037,600	4,078,500	4,122,500	4,164,700
Queensland	2,345,200	2,419,600	2,471,600	2,507,000	2,548,100	2,592,600
South Australia	1,318,800	1,328,700	1,341,500	1,353,900	1,362,900	1,373,100
Western Australia	1,300,100	1,336,900	1,364,500	1,383,700	1,408,200	1,440,600
Tasmania	427,200	429,800	432,600	437,400	442,200	446,900
Northern Territory	122,600	129,400	133,900	138,800	143,900	148,100
Australian Capital Territory	227,600	231,900	236,600	244,600	253,500	264,400
Australia	**14,923,300**	**15,178,400**	**15,378,600**	**15,555,900**	**15,758,400**	**15,973,900**
	Proportion of population of Australia (per cent)					
New South Wales	**35.08**	**34.97**	**34.86**	**34.79**	**34.76**	**34.70**
Victoria	26.45	26.31	26.25	26.22	26.16	26.07
Queensland	15.72	15.94	16.07	16.12	16.17	16.23
South Australia	8.84	8.75	8.72	8.70	8.65	8.60
Western Australia	8.71	8.81	8.87	8.89	8.94	9.02
Tasmania	2.86	2.83	2.81	2.81	2.81	2.80
Northern Territory	0.82	0.85	0.87	0.89	0.91	0.93
Australian Capital Territory	1.53	1.53	1.54	1.57	1.61	1.65
Australia	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

During the intercensal period 1933 to 1947, the population of New South Wales increased at an average annual rate of 0.99 per cent, which was faster than that of any other Australian State except Queensland (where the rate was 1.11 per cent).

In the seven years from 1947 to 1954, however, the rate of increase in New South Wales (1.98 per cent) was lower than in any other State, the average for Australia as a whole being 2.46 per cent.

Between 1954 and 1966, the rate of population increase in New South Wales was the second lowest, being lower than that in all other States except Tasmania. In the intercensal period 1966 to 1971, the rate of increase for the State was higher than for South Australia as well as Tasmania, but again from 1971 to 1976 the rate exceeded that for Tasmania only.

In the period from 1976 to 1981, the average annual rate of increase for New South Wales, based on the increase in estimated resident population, was 1.09 compared with 1.24 for Australia as a whole. This rate was higher than that of Tasmania, Victoria and South Australia.

The annual rate of 1.40 per cent for New South Wales in 1981-82 was the highest annual rate of increase in the State since 1971-72, and exceeded the rates for Tasmania, Victoria, South Australia and the Australian Capital Territory. However, due to declines in overseas migration gains that affected all States, the rate of increase in New South Wales declined to 0.99 and 0.96 per cent in 1982-83 and 1983-84 respectively. This rate for 1983-84 was higher than South Australia only and was the lowest in New South Wales since 1976-77. In 1985-86, the rate of increase improved to 1.21 per cent.

Sydney is the sixth largest city of the British Commonwealth, being exceeded in population by Calcutta, London, Bombay, Delhi and Madras. A comparison of the capital cities of the Australian States and Territories is shown in the next table.

Estimated Resident Population of Capital Cities *(a)* 30 June 1986

Capital city (a)	*Estimated Resident Population 30 June 1986 (preliminary)*	*Proportion of population of whole State or Territory (per cent)*	*Capital city (a)*	*Estimated Resident Population 30 June 1986 (preliminary)*	*Proportion of population of whole State or Territory (per cent)*
Sydney	3,430,550	62.0	*Perth*	1,025,340	71.2
Melbourne	2,942,000	70.6	*Canberra (b)*	263,250	99.6
Brisbane	1,171,340	45.2	*Hobart*	180,250	40.3
Adelaide	993,130	72.3	*Darwin*	n.y.a.	n.y.a.

(a) On the basis of capital city statistical division boundaries as delimited at 30 June 1986. *(b)* Relates to the A.C.T. part of the Canberra Statistical District.

MIGRATION

OVERSEAS ARRIVALS AND DEPARTURES

The statistics of overseas arrivals and departures (as given in this subdivision) represent overseas ship and aircraft passengers arriving in or departing from all ports in Australia, whose State of intended stay or residence was New South Wales (in the case of arrivals) or who regarded themselves as living, or as having spent most time, in New South Wales (in the case of departures). The figures should not be taken to represent complete overseas migration to or from New South Wales. Transit passengers who pass through Australia but are not cleared for entry, passengers on most pleasure sea cruises commencing and finishing in Australia on ships not then engaged in regular voyages, and all members of the crews of ships and aircraft, are excluded from the figures.

Overseas arrivals and departures are classified according to the length of their stay, as stated by travellers on arrival in or departure from Australia. In the classification:

Permanent Movement covers persons arriving to settle permanently in Australia and Australian residents leaving to settle permanently abroad.

Long-term Movement comprises — in the case of arrivals: Australian residents returning from abroad after an absence of twelve months or more and visitors arriving with the intention of staying in Australia for at least twelve months; and in the case of departures: Australian residents leaving with the intention of staying abroad for at least twelve months and visitors leaving after a stay of twelve months or more.

Short-term Movement covers all arrivals and departures of passengers whose intended or actual period of stay in Australia or overseas was less than twelve months.

The intended length of stay (as stated by residents departing and non-residents arriving) represents the traveller's intention at the time. Many travellers subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

The statistics of overseas travellers are derived from a combination of full enumeration and sampling. All movements by sea regardless of period of stay and all movements by air which are permanent or have a period of stay of twelve months or more are fully enumerated. Movements by air which have a period of stay less than twelve months are sampled and statistics relating to these movements are estimates which are subject to sampling errors and, therefore, they may differ from figures that would be obtained from full enumeration. A measure of the difference which may be expected is given by the "standard error" of the estimate, and details of estimates of standard errors will be provided by this Bureau on request.

Detailed statistics of overseas arrivals and departures are given in the annual Subject Bulletin *Population and Migration* (Catalogue No. 3101.1).

The next table shows, for each of the last six years, particulars of overseas arrivals and departures of persons whose State of residence or stay was given as New South Wales. Caution should be exercised when interpreting these statistics, as a number of persons do not indicate their State of residence or stay on arrival or departure so that the figures exclude some persons whose State of residence or stay would have been New South Wales. This is particularly significant in the case of short-term visitors arriving into Australia who did not indicate the State of intended residence (78,100 in 1985) and short-term visitors departing from Australia who did not indicate the State in which they spent most time (26,300 in 1985). However, this situation has always existed and does not invalidate trends within each type of movement over time, but it may affect the figures for the excess of short-term arrivals over departures.

Overseas Arrivals and Departures, N.S.W.: Type of Movement

Type of movement	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
			Arrivals			
Permanent and long-term movements —						
Males	37,697	42,411	38,277	29,550	30,560	35,510
Females	33,603	36,646	33,387	26,600	29,070	32,170
Short-term movement —						
Australian residents —						
Males	264,331	262,905	283,233	272,900	297,000	323,500
Females	235,462	228,171	249,837	233,900	262,600	277,100
Visitors —						
Males	238,405	244,185	248,743	251,800	256,900	299,200
Females	190,514	187,765	192,691	199,600	223,800	237,400
Total movement —						
Males	*540,434*	*549,501*	*570,253*	*554,200*	*584,500*	*658,100*
Females	*459,579*	*452,582*	*475,915*	*460,000*	*515,500*	*546,700*
Persons	*1,000,013*	*1,002,083*	*1,046,168*	*1,014,300*	*1,099,900*	*1,204,800*
			Departures			
Permanent and long-term movements —						
Males	17,449	16,401	18,212	19,860	17,730	17,990
Females	15,366	14,578	15,301	16,810	16,790	16,770
Short-term movement —						
Australian residents —						
Males	267,870	266,185	289,655	279,500	306,600	325,800
Females	238,429	240,696	251,216	238,100	269,900	289,100
Visitors —						
Males	253,358	256,620	258,257	262,000	271,300	319,700
Females	206,060	198,012	195,955	203,900	230,300	251,100
Total movement —						
Males	*538,677*	*539,206*	*566,124*	*561,400*	*595,700*	*663,500*
Females	*459,856*	*453,286*	*462,472*	*458,800*	*517,000*	*557,000*
Persons	*998,533*	*992,491*	*1,028,595*	*1,020,200*	*1,112,700*	*1,220,500*
			Excess of arrivals over departures			
Permanent and long-term movements —						
Males	20,248	26,010	20,065	9,690	12,830	17,520
Females	18,237	22,068	18,086	9,790	12,280	15,400
Short-term movement —						
Australian residents —						
Males	(—)3,538	(—)3,280	(—)6,422	(—)6,600	(—)9,600	(—)2,400
Females	(—)2,967	(—)12,525	(—)1,379	(—)4,200	(—)7,300	(—)12,000
Visitors —						
Males	(—)14,953	(—)12,435	(—)9,514	(—)10,200	(—)14,400	(—)20,500
Females	(—)15,546	(—)10,247	(—)3,264	(—)4,300	(—)6,500	(—)13,700
Total movement —						
Males	*1,757*	*10,295*	*4,129*	*(—)7,200*	*(—)11,200*	*(—)5,400*
Females	*(—)277*	*(—)704*	*13,443*	*1,200*	*(—)1,500*	*(—)10,300*
Persons	*1,480*	*9,592*	*17,573*	*(—)5,900*	*(—)12,800*	*(—)15,700*

NOTE. The sign (—) denotes an excess of departures over arrivals.

There was a sharp decline in permanent and long-term arrivals between 1969 and 1975, resulting in a similar decline in the excess of permanent and long-term arrivals over departures. The period from 1975 to 1981 saw a recovery in the level of arrivals which, together with a continuing steady decrease in the number of permanent and long-term departures, resulted in a recovery of the excess of permanent and long-term arrivals over departures to the level experienced in 1971. Between 1981 and 1983, there was a reversal of this trend whereby the number of arrivals fell from 79,057 in 1981 to 56,140 in 1983, and the number of departures rose from 30,979 in 1981 to 36,680 in 1983. However, in 1985 the number of arrivals rose to 67,680 and the number of departures fell to 34,760.

The high levels of short-term movement experienced since the late seventies continued during 1985. The number of visitors arriving from overseas (536,540) and the number of Australian residents departing to overseas countries on a short-term basis (614,960) are the highest ever recorded.

OVERSEAS IMMIGRATION

Immigration has been a major factor in Australia's growth. Immigration programmes are determined in the light of existing economic and social conditions in Australia. The aims of the Commonwealth Government's current policy are to reflect the needs of Australia, now and in the future; to extend family migration consistent with employment opportunities; and to ensure that immigration policies are responsive to humanitarian, compassionate, and other special needs.

The nine principles on which the Government bases its policy are: the Commonwealth Government alone should determine who will be admitted to Australia; migrant entry criteria should be developed on the basis of benefit to the Australian community and the social, economic, and related requirements within Australia; the size and composition of migrant intakes should not jeopardise social cohesiveness and harmony within the Australian community; immigration policy should be applied on a basis which is non-discriminatory (i.e. applied consistently to all applicants regardless of their race, colour, nationality, descent, national or ethnic origin, or sex); applicants should be considered for migration as individuals or individual family units, not as community groups; eligibility and suitability standards for migrants will reflect Australian social mores and Australian law; migration to Australia should be for permanent settlement; enclave settlement will not be encouraged; and immigrants should integrate into Australian society.

Under the Migrant Selection System adopted on and modified since 19 April 1982, applicants for immigration to Australia are considered in one of five eligibility categories. These comprise *(a)* family migration (close family), *(b)* skilled labour and business migration, *(c)* independent and concessional migration which aims to attract young, skilled and educated people (concessional points are awarded for sponsorship by siblings, parents, aunt or uncle resident in Australia), *(d)* refugee and special humanitarian programs, and *(e)* special eligibility (i.e. dependants of New Zealand citizens who are not themselves New Zealand citizens, self-supporting retirees, persons with creative and sporting talents, former citizens and residents of Australia, and other people not eligible elsewhere who have outstanding attributes). All applicants should be of good health and character and should not represent a settlement risk. In addition, separate selection criteria are set for each category.

Assisted Immigration

Since World War II, immigration has played a prominent part in the Commonwealth Government's policies for national development, and successive Commonwealth governments have borne a substantial part of the passage costs of selected migrants from overseas countries. In April 1981, as part of the Review of Commonwealth Functions, the Commonwealth Government decided to terminate the Assisted Passage Scheme but continues to apply special provisions for refugees.

Migrant Settlement

A number of services are provided to assist migrants to settle in Australia.

In New South Wales, initial accommodation for some migrants (mostly refugees) is available at a migrant centre in Sydney. Most newly-arrived refugees are accommodated initially at this migrant centre.

The Commonwealth Department of Immigration and Ethnic Affairs provides a migrant welfare service staffed by professional social workers, welfare officers, and supporting staff. The Department also provides the Telephone Interpreter Service, which, in New South Wales, currently operates in Sydney, Wollongong, Albury and Newcastle, and the Translation Service, which provides facilities for the translation of migrants' documents, official documents, and Departmental correspondence, and undertakes translation for other Commonwealth departments. In addition, the Ethnic Affairs Commission, which is a NSW Government statutory body, provides a community interpreter and information service through its six offices. Each office has full-time interpreters for each of the main ethnic groups and a panel of part-time interpreters to provide back-up and assistance in most other languages. Interpreters are available for police, court and other kinds of legal situations as well as for trade examinations. A translation service is also available to the general public. Both of the Commission's services cover about 60 languages.

The Commonwealth Department of Immigration and Ethnic Affairs has located a Settlement Co-ordinator at the migrant centre to encourage co-ordination and development of initial settlement programmes and activities for migrants resident at the centre. The programmes and activities include sessions conducted in the "home" language of the migrant to provide basic orientation to life in Australia and assistance and counselling in respect of employment, housing, and general welfare, in addition to full or part-time English courses. The Australian Government promotes migrants' access to, and involvement in, the delivery of appropriate welfare services through the following programs:

(a) Grant-in-Aid Scheme, under which three year terminating grants are paid to selected organisations to subsidise the employment of social and welfare workers to provide welfare services to migrants. At 30 June 1987 there were 58 organisations in New South Wales in receipt of 79 grants to the value of over $2.4m under this Scheme.

(b) Migrant Workers' Rights Scheme, under which terminating grants of up to three years are paid to selected unions and union peak Councils to subsidise the employment of development officers to increase migrant access to union resources, and awareness of their industrial rights and welfare needs in the workplace. At 30 June 1987 there were 5 unions in New South Wales in receipt of grants to the value of close to $150,000 under this Scheme.

(c) Migrants Project Subsidy Scheme, provides "once only" subsidies of up to $10,000 to assist organisations with the costs of migrant welfare related projects. A total of 17 grants, amounting to $62,000 were allocated to organisations in New South Wales in 1985-86.

(d) Migrant Resource Centres, designed to stimulate self help within ethnic groups' activities. In New South Wales, there are seven Migrant Resource Centres located at Blacktown, Canterbury, Liverpool, Eastlakes, Rockdale, Newcastle and Wollongong.

The Commonwealth Government, in conjunction with State and other educational authorities, funds a comprehensive Adult Migrant Education Program which provides English language learning opportunities to adult migrants and refugees who have become permanent residents of Australia. It also provides information about life in Australia, including information about community services and institutions and an understanding of the rights and duties of Australian citizens and residents. Tuition is provided free of charge, in day and evening classes, part-time and full-time courses, correspondence, radio and television lessons, and courses at the workplace (see also the division "Non-formal Education" in Chapter 7 "Education"). A volunteer home tutor program helps to meet the needs of men and women who are unable to take advantage of other learning opportunities. Special tuition in English for children is provided within the school system. The Commonwealth Government provides funds for this purpose mainly through the Schools Commission (see also the division "Government Outlays on Education in New South Wales" in Chapter 7 "Education").

Citizenship

The *Australian Citizenship Act 1948* created the status of "Australian citizenship". Australian citizenship may be acquired *(a)* by birth in Australia prior to 20 August 1986 or, by birth in Australia on or after that date if at least one parent is either an Australian citizen or a permanent resident at the time of the child's birth, *(b)* by adoption in Australia on or after 22 November 1984 if, at the time of adoption, the person is present in Australia as a permanent resident and is adopted by an Australian citizen or jointly by two persons at least one of whom is an Australian citizen, *(c)* by descent for persons born outside Australia if the birth is registered at an Australian consulate within 18 years after the birth and at least one parent was an Australian citizen at the time of the child's birth — if the parents acquired Australian citizenship by descent, the parents must have resided in Australia for an aggregate of at least 2 years at any time prior to the registration, and *(d)* by grant of citizenship to permanent residents in Australia under the conditions prescribed under the Act. To qualify for grant of citizenship all settlers must have lived in Australia for an aggregate of at least two years of the five years immediately preceding the date of the lodging of the application and an aggregate of at least one year of the two years immediately preceding that date. Apart from residential qualifications, applicants must be at least 18 years of age, be of sound mind and good character, intend to live permanently in Australia or to maintain a close and continuing association with Australia, have a basic knowledge of English and adequate knowledge of the responsibilities and privileges of citizenship.

Exemptions from certain requirements for granting of citizenship may be made in terms of the Act. With the exception of children under 16 years of age and certain physically or mentally incapacitated persons, all persons acquiring citizenship by grant are required to take an oath, or make an affirmation of allegiance.

Marriage to a foreign national has no effect on Australian citizenship. Persons of foreign nationality who marry Australian citizens do not automatically acquire Australian citizenship. Certain Australian citizens (e.g. some persons born overseas and granted Australian citizenship) may have dual nationality, i.e. they may be regarded by the authorities in the country of their birth as a national of that country. Consequently, they may be subject to the obligations and entitled to the rights of citizens of the other country, if they visit it. Australian citizenship laws attempt to minimise dual nationality. An Australian citizen aged 18 years or over who applies for and acquires the citizenship of another country loses Australian citizenship automatically.

Resumption of Australian citizenship by former Australians is possible where they did not know they would lose Australian citizenship by acquiring the other citizenship or would have suffered significant hardship or detriment if they had not acquired the other citizenship. They must also demonstrate a close association with Australia, including residence of at least 2 years and an intention to reside in Australia.

INTERNAL MIGRATION

An Internal Migration Survey is conducted on an annual basis to determine the number and characteristics of movers. The survey is based on a multi-stage area sample of private dwellings (houses, flats, etc.) and non-private dwellings (hotels, motels, etc.) and covers about two-thirds of one per cent of the population of Australia.

Internal migration statistics, details of sampling errors associated with those statistics, and further details relating to the survey are contained in the publication *Internal Migration, Australia* (3408.0).

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Census 86 — Age and Sex of Persons in Statistical Local Areas and Statistical Divisions, N.S.W.* (Catalogue No. 2454.0), *Census 86 — Persons and Dwellings in Legal Local Government Areas, Statistical Local Areas and Urban Centres/Rural Localities, N.S.W.* (2462.0), *Census 86 — Profile of Legal Local Government Areas — Usual Residents Counts, N.S.W.* (2470.0), *Australian Demographic Statistics* (3101.0), *Estimated Resident Population by Sex and Age: States and Territories of Australia,* (3201.0), *Overseas Arrivals and Departures, Australia* (3404.0), *Interstate Migration, Australia, 1981 Census of Population and Housing* (3411.0). Details of the availability of 1986 Census data are contained in a series of Census 86 Information Papers, particularly *Census 86 — Data Release Plans* (2173.0), *Census 86 — Special Data Services* (2181.0), *Census 86 — Microfiche* (2185.0) and *Census 86 — Standard Tables on Magnetic Tape* (2186.0).

A.B.S. Publications (N.S.W. Office):*Census 1981: Families with Children under 16 years* (2201.1), *Census 1981: Internal Migration between 1976 and 1981 by Local Government Areas* (2202.1), *Population and Migration* (3101.1), *Estimated Resident Population of Statistical Local Areas* (3206.1), *Estimated Resident Population of Statistical Local Areas (Preliminary)* (3210.1), *Estimated Resident Population and Components of Change in Population of Statistical Local Areas (Final), 1981 to 1986* (3208.1), *Age and Sex Distribution of the Estimated Resident Population of Statistical Local Areas, 30 June 1986* (3209.1).

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4

VITAL STATISTICS

SOURCES OF VITAL STATISTICS

Vital statistics cover births, deaths, marriages, and divorces. Statistics on births, deaths and marriages are produced as an administrative by-product of the registration of such events by Registrars in the various States and Territories of Australia, while statistics on divorces are produced as an administrative by-product of the granting of a decree of dissolution of marriage by the Family Law Court.

REGISTRATION OF BIRTHS, DEATHS AND MARRIAGES

Civil registration of births, deaths, and marriages has been compulsory in New South Wales since 1856. Births, deaths, and marriages must be registered in accordance with the provisions of the Registration of Births, Deaths and Marriages Act 1973, which replaced the Registration of Births, Deaths and Marriages Act 1899, from 1 January 1974. The registration of ministers of religion for the celebration of marriages, and the civil requirements in regard to the celebration of marriages, are governed by the (Commonwealth) *Marriage Act 1961*, which came fully into operation on 1 September 1963, and superseded State legislation formerly dealing with these matters.

The administration of civil registration in New South Wales is the responsibility of the Registry of Births, Deaths and Marriages, under the control of the Principal Registrar of Births, Deaths and Marriages.

Vital Statistics

The functions of the Registry include the registration of all births, deaths, marriages, legitimations and adoptions; the issuing of certified copies and extract certificates relating to births, deaths and marriages; the recording of name changes to birth registrations and other alterations to records; the preservation of all records created since 1788; the maintenance of a register of still-births for medical research purposes; the maintenance of a register of marriage celebrants and the performance of civil marriages.

The head office of the Registry is located at Sydney, regional registries are located at Newcastle and Wollongong and local registries are located throughout the State. The function of all local registrars is receiving and checking forms of information of births and deaths and despatching these documents to the Sydney Registry or the appropriate regional registry for processing and registration. Copies of the registrations of births and deaths are despatched to the appropriate local registrar to permit certified copies and extracts of registrations to be issued.

DISSOLUTION OF MARRIAGE

Prior to 1873, there was no provision for the dissolution of marriage in New South Wales. During the period 1873 to February 1961, jurisdiction in this area was conferred on the Supreme Court by the (State) *Matrimonial Causes Act 1873*. This State legislation was superseded by the (Commonwealth) *Matrimonial Causes Act 1959*, which came into operation on 1 February 1961. This legislation has since been superseded by the *Family Law Act 1975*, which came into operation on 5 January 1976.

Manuscript of this chapter prepared in February 1987.

The Family Court of Australia, which was created by the Family Law Act is a superior court of record with jurisdiction in the proceedings of dissolution and annulment of marriage and other ancillary reliefs such as maintenance, division and settlement of property, and custody and maintenance of children. The Act provides that the Family Court, in the exercise of its jurisdiction shall have regard to such matters as the need to preserve and protect the institution of marriage; the need to give the widest possible protection and assistance to the family as the natural and fundamental group unit of society; and the need to protect the rights and welfare of children. The Court is also obliged to consider the means available for helping parties to a marriage to consider reconciliation or the improvement of their relationship. The Act also confers concurrent jurisdiction in respect of ancillary reliefs on courts of summary jurisdiction, State Family Courts, and State Supreme Courts.

In New South Wales, Registries of the Court are located at Sydney, Parramatta and Newcastle. There is also a Registry located at Lismore which is attached to the Queensland Court. More information relating to the Family Court can be found in Chapter 9, "Law, Order and Public Safety".

COMPILATION OF VITAL STATISTICS

Throughout this chapter statistics relate to events registered, or in the case of divorces to decrees made absolute, during the calendar year shown. As a result of normal delays in registration some births and deaths occurring in one year are not registered until the following year or even later. However 98 per cent of all births are usually registered within 3 months of the month of occurrence and 99 per cent of all deaths and marriages are usually registered within 2 months of the month of occurrence.

Statistics on marriages in this chapter relate to marriages registered in New South Wales. Statistics on divorces relate to divorces granted in New South Wales. In the interpretation of data on divorces it is important to bear in mind that, as there is no residential requirement under the Family Law Act applicants may be resident anywhere in Australia. Also the number of decrees made absolute in any one year is affected by the availability of judges and the complexity of the cases brought before them. A rise in numbers in one year may be due wholly or in part to a clearing of a backlog of cases from an earlier period.

Processing Delays During 1984

The numbers of births, deaths and marriages registered during 1984 were significantly less than anticipated due to abnormal delays in the registration processes at the New South Wales Registry of Births, Deaths and Marriages. In 1985, these delays were completely overcome for births and deaths registrations but the backlog of marriage registrations was not overcome until 1986. A comparison of the actual registrations, as published in this chapter and the estimated normal registrations if the delays at the Registry had not occurred, is as follows:
Births, 1984, actual registrations 77,994, estimated normal 82,392,
Births, 1985, actual registrations 87,786, estimated normal 83,388,
Deaths, 1984, actual registrations 39,302, estimated normal 41,089,
Deaths, 1985, actual registrations 44,264, estimated normal 42,069,
Marriages, 1984, actual registrations 33,938, estimated normal 39,768,
Marriages, 1985, actual registrations 41,183, estimated normal 39,441.

The crude birth, death and marriage rates, shown later in this chapter, are based on the estimated normal figures.

Change to Usual Residence Statistics

Prior to 1983, statistics on births and deaths were presented on the basis of the State in which the events were registered. From 1 January 1983 births and deaths statistics for New South Wales, as well as other States and Territories of Australia, are compiled and presented in respect of the State or Territory of usual residence of the mother (in the case of births) or the deceased (in the case of deaths) regardless of where in Australia the event occurred or was registered. For comparability purposes, figures back to 1980 inclusive, in this issue of the Year Book, have been compiled on the new basis. However, all tables in this chapter which include perinatal deaths are on the State of registration basis due to differences in definition between States. Cause of death statistics prior to 1982 remain on the State of registration basis.

BIRTHS

Information for the registration of all births is required to be furnished to a local registrar or a regional registry within one month after the birth — a declaration and other evidence may be required after the expiration of that period.

Registration and statistics both distinguish between a live birth and a fetal death (stillbirth). For registration purposes, only children who actually breathed after delivery are considered to be live births. For statistical purposes, the criterion for differentiating between a live birth and a fetal death was slightly changed, from 1 January 1968, to accord with international recommendations whereby beating of the heart was adopted in lieu of breathing. Statistics of fetal deaths are shown in the sub-divisions "Perinatal Deaths" and "Fetal Deaths" later in this chapter.

The births of full-blood Aboriginals which could be distinguished were excluded from the birth statistics of New South Wales from 1933 to 1966, but have been included (following amendment of the Australian Constitution in 1967) from 1 January 1967. The figures for 1966 have been adjusted to include births of full-blood Aboriginals.

Movements in the crude birth rate (i.e., the number of live births per 1,000 of mean estimated population) prior to 1948 are discussed in earlier issues of this Year Book. From 1948 until 1962 the rate remained fairly steady at 21 or 22 per thousand, but then a rapid decrease followed, until in both 1966 and 1967 the rate had fallen to 18.35. This fall was due to the increasing tendency to defer having children during the early years of marriage and possibly the increased use of oral contraceptives. From 1968 to 1971, the rate rose each year, reaching 20.84 in 1971 when the number of live births increased by 10,018 (11 per cent) over the number registered in the previous year. This rise was probably due to the increasing number of females reaching child-bearing age. From 1972 to 1979, the rate declined significantly reaching 15.16 in 1979, the lowest ever recorded in New South Wales. This downward trend was reversed between 1979 and 1982 but the rate has continued to decline since 1982.

Statistics of the live births in New South Wales since 1926 are summarised in the next table.

The rates shown for 1971 to 1985 are the number of live births per 1,000 of mean estimated resident population. These rates are based on the *estimated resident population* — the new concept adopted following the 1981 Census (see the sub-division "Estimated Resident Population of N.S.W." in Chapter 3 "Population").

Live births *(a)*, New South Wales

Period	*Number of live births*			*Birth rate(b)*	*Masculinity rate(c)*
	Males	*Females*	*Total*		
Average annual —					
1926-30	27,401	25,917	53,318	21.77	105.7
1931-35	23,071	21,896	44,967	17.29	105.4
1936-40	24,361	23,318	47,679	17.51	104.5
1941-45	28,997	27,586	56,583	19.79	105.1
1946-50	35,398	33,459	68,857	22.60	105.8
1951-55	37,796	35,941	73,737	21.78	105.2
1956-60	40,889	38,724	79,613	21.55	105.6
1961-65	42,586	40,311	82,897	20.49	105.6
1966-70	42,368	40,191	82,559	18.87	105.4
1971-75	46,025	43,606	89,631	18.53	105.5
1976-80*(d)*	40,072	38,098	78,170	15.45	105.2
1981-85*(e)*	42,605	40,388	82,993	p15.49	105.5
Year(e) —					
1980	41,159	38,642	79,801	15.43	106.5
1981	42,280	39,691	81,971	15.65	106.5
1982	43,096	40,812	83,908	15.82	105.6
1983	42,706	40,601	83,307	15.54	105.2
1984*(f)*	39,885	38,109	77,994	15.22	104.7
1985*(f)*	45,058	42,728	87,786	p15.23	105.5

(a) Full-blood Aboriginals are excluded before 1966. See text preceding table. *(b)* See text preceding this table. *(c)* Number of male live births per 100 female live births. *(d)* State of registration basis. *(e)* State of usual residence basis. *(f)* The 1984 figures are significantly affected by under-registration of births with a corresponding increase in 1985. The birth rate is an estimated figure based on an estimate of the number of births which would have been registered in 1984 and 1985 if registration delays had not occurred — see section "Processing Delays during 1984" earlier in this chapter.

In the last one hundred years, the number of female births has not exceeded that of male births in any year, the smallest proportion being 102 males to 100 females (which was recorded in 1901). Over the thirty-year period to 1985, the ratio of male to female births was highest in 1956 (when it was 107.4 to 100), and lowest in 1958 (when it was 104.0 to 100).

Crude birth rates for each of the Australian States and for Australia are given for the last four years in the following table. These rates make no allowance for the differences in sex and age composition of the respective populations.

Birth Rates *(a)*, Australia

State	*1982*	*1983*	*1984*	*p1985*
New South Wales	**15.82**	**15.54**	**(c)15.22**	**(c)15.23**
Victoria	15.00	14.85	14.59	14.93
Queensland	16.78	17.04	16.13	15.87
South Australia	14.45	14.78	14.82	14.52
Western Australia	16.66	16.93	15.62	16.41
Tasmania	16.38	16.32	16.31	16.40
Australia *(b)*	**15.81**	**15.78**	**(c)15.33**	**(c)15.42**

(a) Number of live births per 1,000 of mean estimated resident population. *(b)* Includes the Australian Capital Territory and the Northern Territory. *(c)* The birth rates for N.S.W. and Australia are estimated rates based on estimates of the number of births which would have been registered in 1984 and 1985 if registration delays had not occurred in N.S.W. — see section "Processing Delays during 1984" earlier in this chapter.

Relative Fertility

Crude birth rates, which relate the number of live births to the total population, may not truly indicate the trend in fertility over a period of time, and they are of limited use in comparisons with other States or countries. To obtain rates suitable for such purposes, it is essential to eliminate the effects of changing age and sex composition of the population and changes in the marital status.

To determine the trend in fertility it is convenient to relate total live births to the number of women (irrespective of marital status) at each age and at the combined reproductive ages. This has been done in the following table, which shows the number of births per 1,000 women in age groups from 15 to 44 years in the census years 1933, 1961, 1966, 1971, 1976, 1981 and in the latest two years. The rates shown for 1971 to 1985 are based on the estimated resident population.

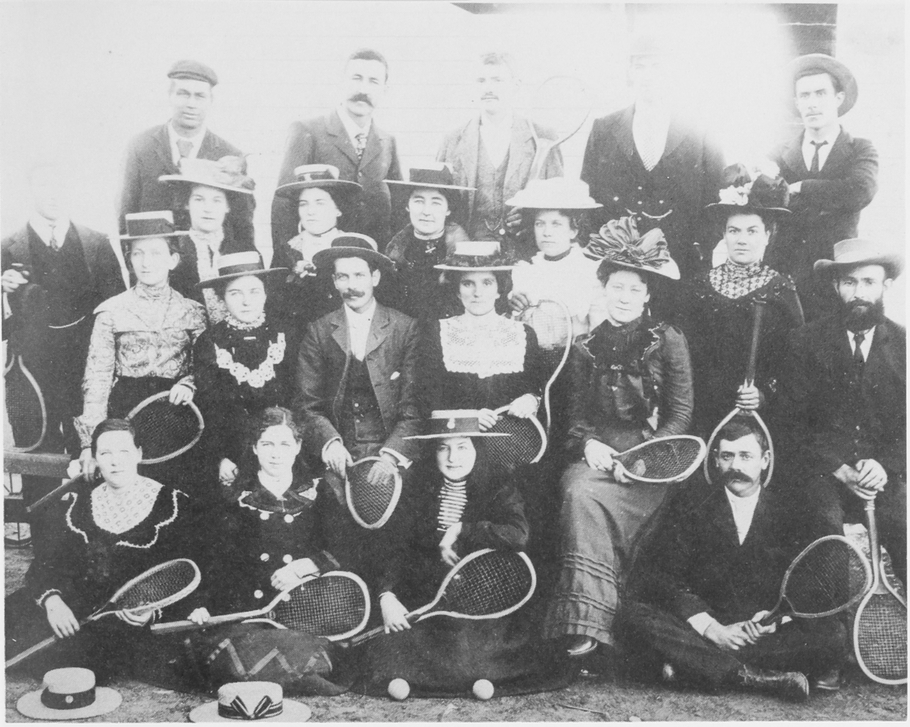
Live Births Per 1,000 Women of Reproductive Age, N.S.W.

Age group (years)	*1933*	*1961*	*1966*	*1971*	*1976*	*1981*	*1984(a)*	*1985(a)*
15-19	29.73	48.03	49.97	57.80	34.97	28.20	22.62	23.26
20-24	106.05	215.64	159.67	168.23	122.61	106.86	91.33	98.40
25-29	119.68	210.30	172.11	183.04	143.54	144.35	133.97	148.66
30-34	94.39	124.59	99.91	99.30	74.77	79.54	80.56	94.32
35-39	59.23	58.04	46.18	41.44	24.70	25.59	25.01	29.46
40-44	24.04	16.72	12.52	10.47	5.18	4.51	4.60	4.92
General fertility rate (15-44)	72.57	108.38	88.60	99.00	73.59	69.77	63.28	70.03

(a) The 1984 figures are significantly affected by under-registration of births with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

The long-term downward trend in fertility of women aged 35 years or more has reflected the increasing tendency towards the limitation of family size. However, in the last 5 years, this trend has been arrested and now shows a slight increase. For younger women of child-bearing age this downward trend did not occur until 1972. During the inter-censal period 1971-76 the fertility rates fell dramatically for all age groups of child-bearing women. The general fertility rate (births to mothers aged 15-44 years per 1,000 women aged 15-44 years) fell from 99.00 in 1971 to 73.59 in 1976 and 69.77 in 1981. Because of the under-registration problem in 1984, and the corresponding increase in 1985, a comparative analysis of fertility rates for 1984 and 1985 is difficult. The general fall in fertility rates in the younger age groups 15-19 and 20-24 since the early 'seventies has continued. In all other age groups, the rates have shown small increases or remained steady since the mid 'seventies, but remain well below the rates of the early 'seventies and earlier.

The low fertility rates for all age groups in 1933 followed the economic recession of the early 'thirties. In 1947, the rates were increased by the general demobilisation of servicemen after World War II. The lower rates reflected in the figures shown for 1966 show the tendency for women to continue working after marriage, and thus to defer having children



Left: Tennis players, West Wyalong, about 1900. In New South Wales, an interest in tennis dated from the mid-1870's and imitated the trend in Britain, as colonial fashions so often did. In the small country towns, tennis was at first the province of what has been referred to as the "small-town bourgeoisie" — bank clerks, storekeepers and similar members of the middle class. As time went on, however, social barriers began to disappear and sports teams came rather to represent their respective towns. Male tennis-players of this era often wore ties and wide-brimmed hats, although only the ties are universal in this group. The ladies played tennis in garb very similar to the clothes they wore each day — usually a blouse and long, dark skirt containing a pocket for keeping tennis balls. West Wyalong at this time was a burgeoning town — it had been established in 1895, growing out of gold discoveries in the area in 1893.

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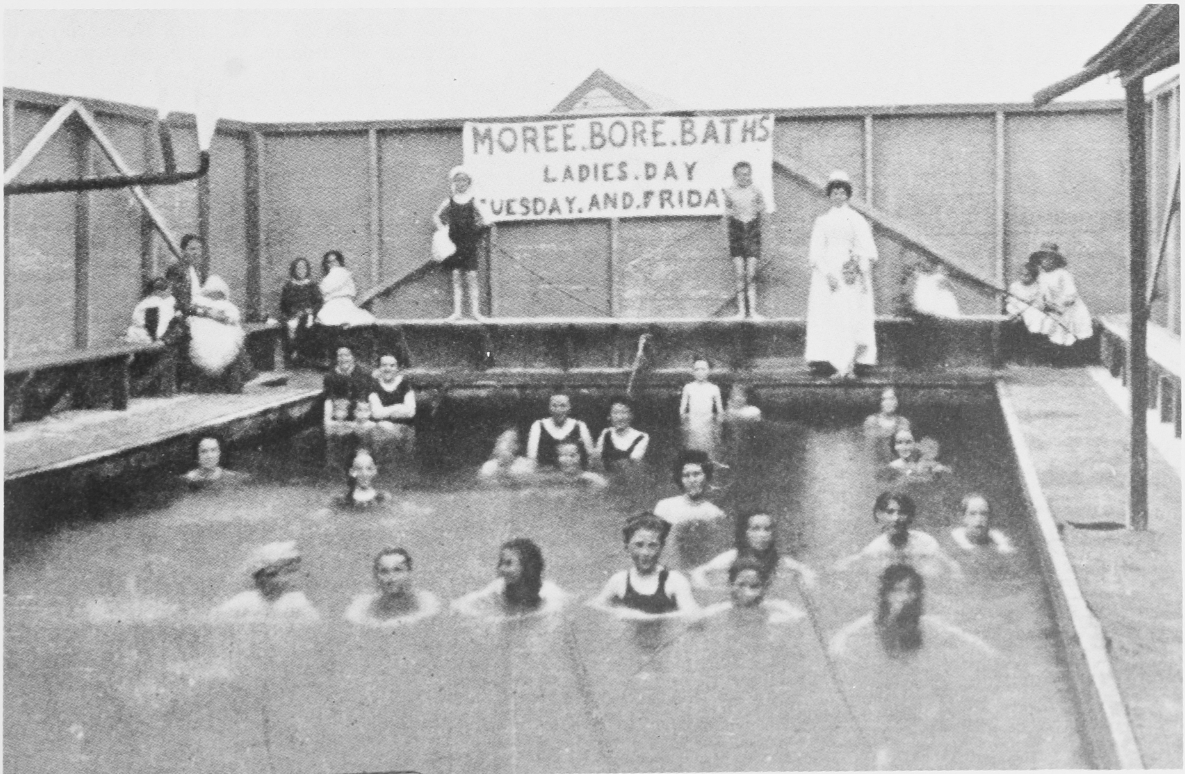
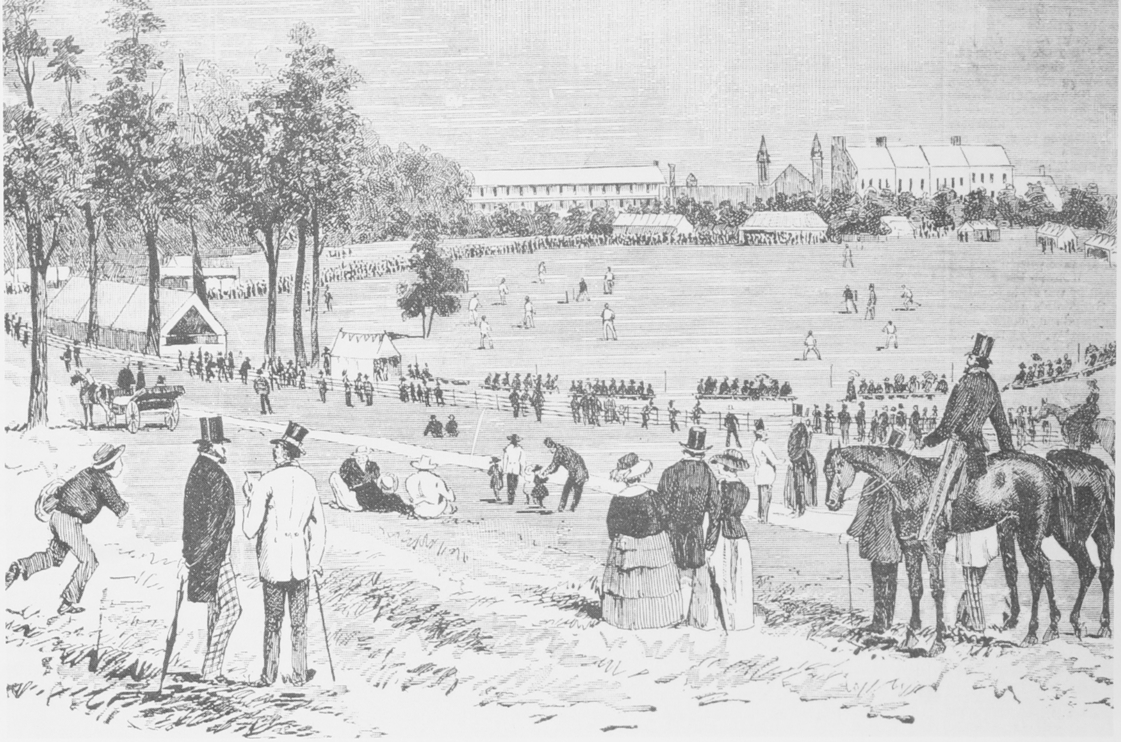
Below: Artesian bore baths, Moree, about 1905. Surveyed in 1859, the town of Moree, in northern New South Wales, was given the same name as a neighbouring station, being derived from an Aboriginal word meaning "waterhole" or "long spring". The Moree springs were part of a basin of water-bearing artesian strata occurring over large areas of Queensland, New South Wales and the north-eastern section of South Australia. Opened in 1895, the bore descended to a depth of about 900 metres and had a daily flow estimated at 2,730,000 litres. Originally part of plans for irrigation, the water's high mineral content was said to have curative properties against rheumatism and other complaints. Moree became very well-known for these hot artesian bore baths and bathing pools were constructed for both men and women. The water averages 45 degrees Celsius in temperature, and the bore still yields water today.

Mitchell Library State Library of New South Wales





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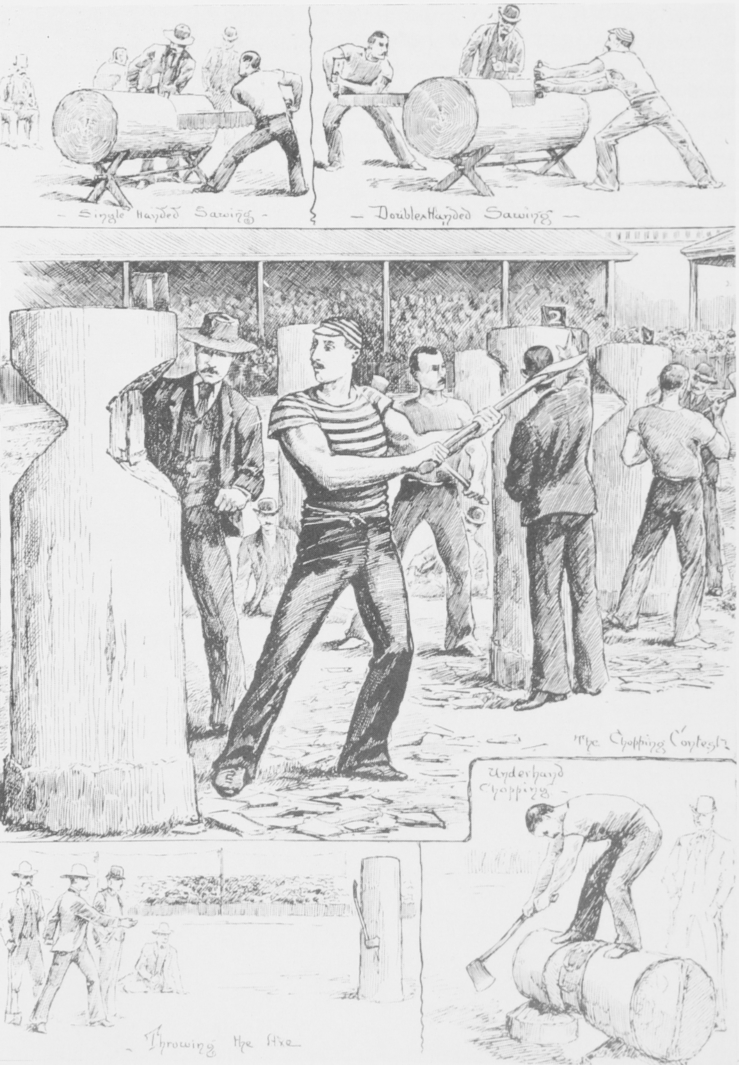
The first Sydney cricket match between New South Wales and Victoria, played in the Domain, January 1857 (from a watercolour by S.T. Gill). In March 1856, the first inter-colonial cricket match had been held in Melbourne, the New South Wales eleven being the victorious team. This second inter-colonial contest was therefore very well-attended by over 10,000 people, including the Governor and many prominent citizens. After two and a half days play, New South Wales again emerged the victor. Cricket had been well-established in the colony as early as 1810, under the auspices of Governor Macquarie, and the first two cricket clubs — the Military Club and the Australian Club — had been formed in 1826. In the illustration, Gill has depicted a diversity of colonial types drawn together by their common affinity with the game.



Left: Wood-chopping, from the "Illustrated Australian News", 1 February 1893. Because of their relevance to the development of the colony, the felling and cutting of timber were of importance from the early days of settlement. Skill with the axe eventually became a sport as well as an occupation, the first recorded contest in axemanship being a tree-felling match at Ulverstone, in Tasmania, in 1874. Such competitions grew in popularity, and were featured at agricultural shows. The illustration depicts some standard competitions — sawing contests including both single-handed and double-handed tests (*top*), standing block (*centre*) where contestants cut a vertical log, axe throwing (*Below left*) and underhand chopping (*below right*) in which competitors stand on the log while cutting it from above. In New South Wales, blackbutt, stringybark, messmate, white gum and turpentine are the timbers mainly used in these contests, and most of the axe-blades used are of Australian steel and design.

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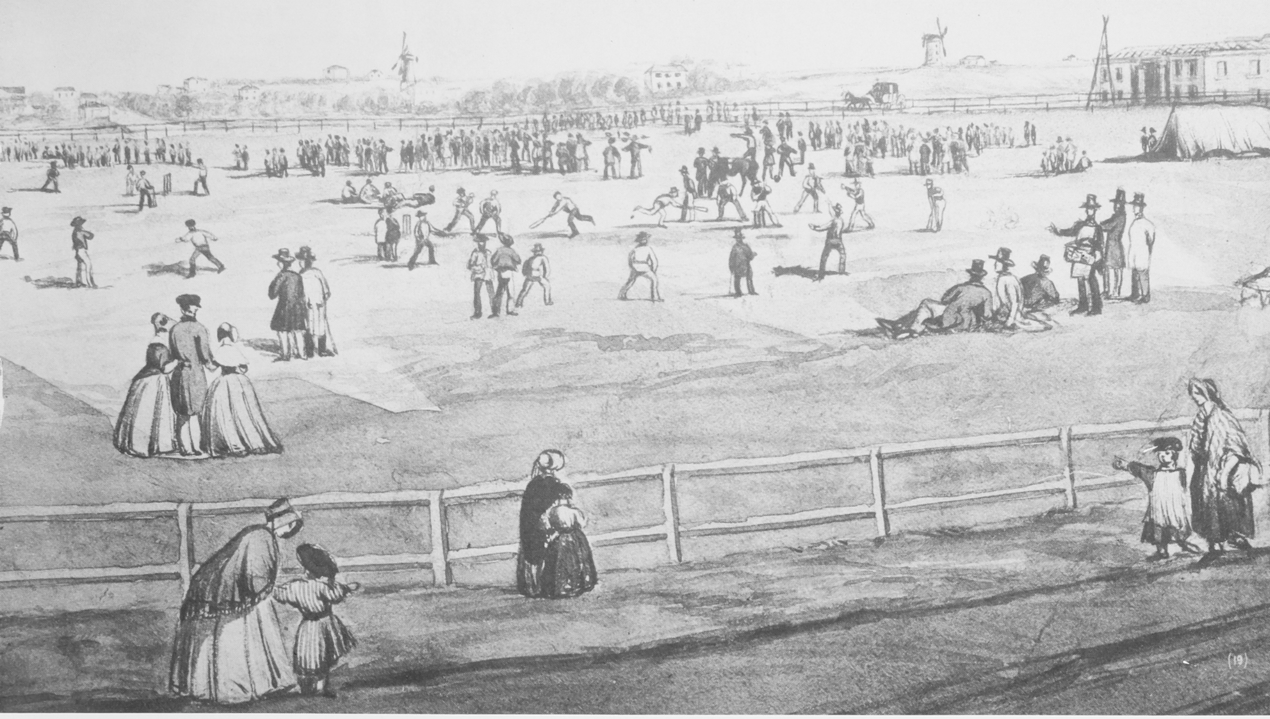

N.S.W. Government Printer

Hyde Park, 1842 (*above*) and outdoor chess in modern Hyde Park (*below*). Before its naming by Governor Macquarie, Hyde Park had several designations which reflected its various uses including "Race Course", "Exercising Ground", "Cricket Ground" and "The Common". In 1810 however, Macquarie ordered that the area henceforth be called "Hyde Park" (after Hyde Park in England) and that it be used for the recreation of Sydney's citizens and for exercising the troops. Horse-racing had been the purpose for which the 73rd Regiment had first cleared the land in 1810 and Hyde Park continued to function mainly as a racecourse until 1821. By that year, however, many imposing residences and several public buildings near the Park made it necessary to hold race meetings further from town, and they were henceforth held about four miles southwards at the Sandy Race Course. In subsequent years, Hyde Park was fenced in and its main promenade, with its sweeping views, remained a very popular walkway. Many cricket clubs also utilised the Park, as seen in the illustration above. It remained a recreation reserve and, later in the century, its fifty acres were placed under the care of trustees, who were responsible for its general maintenance and the upkeep of its gardens. In 1888, writings of the period mention the central avenue of Hyde Park, with its asphalt path beneath shady Moreton Bay fig trees and its continuous human parade. In 1988, the avenue survives and Hyde Park remains a communal medium in which Sydney's citizens enjoy many diverse activities.

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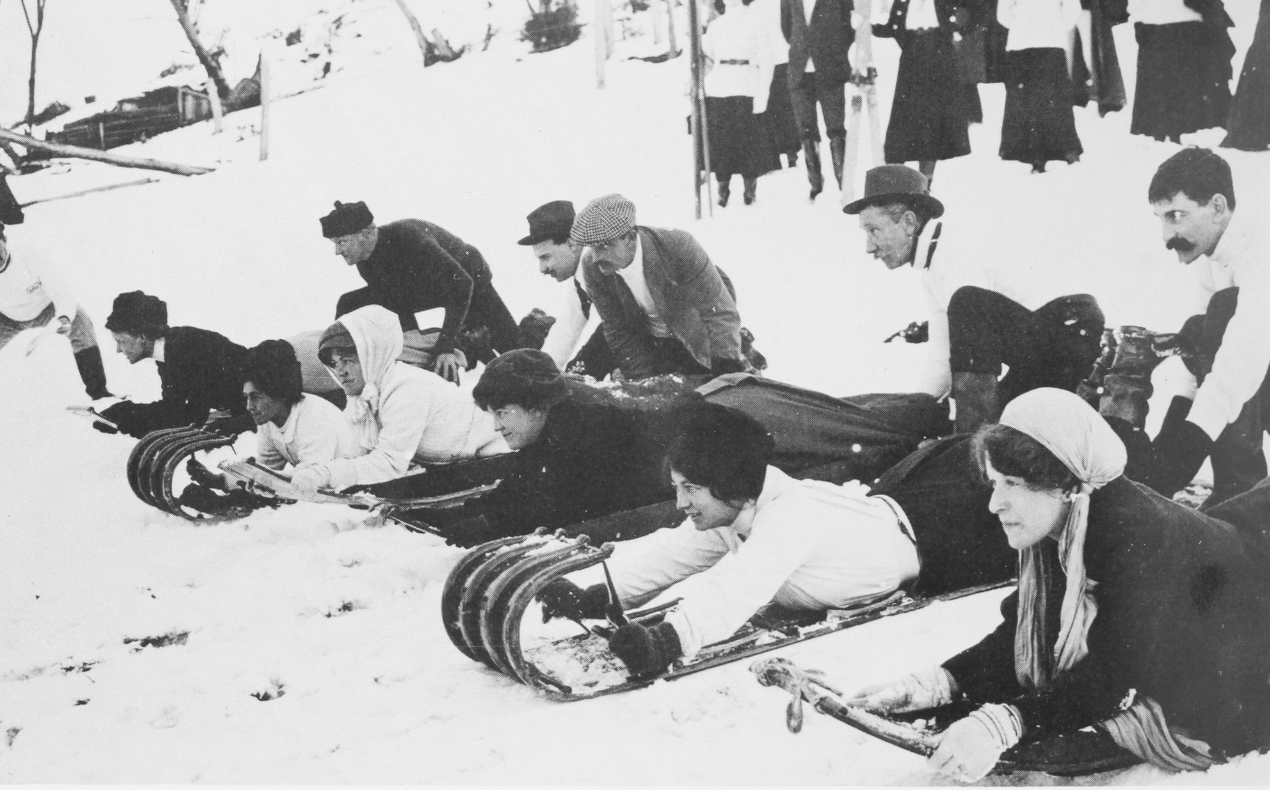

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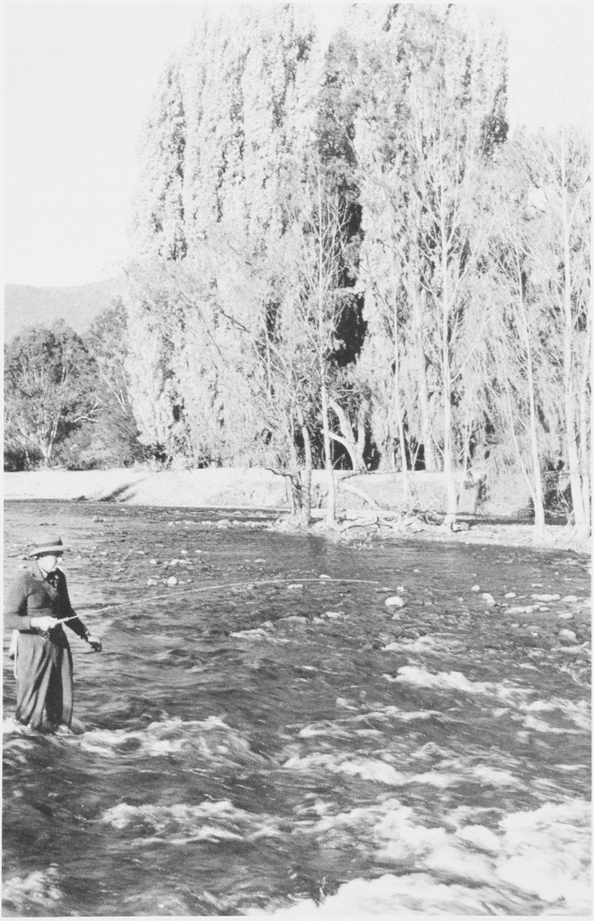


Above: Toboggan racing, Mount Kosciusko, about 1910. Paul Strzelecki discovered and named Mount Kosciusko in 1840 and, two decades later, skiing was introduced to the Snowy Mountains town of Kiandra by Norwegian gold-diggers. By the turn of the century, devotees were importing North European skis or, more frequently, making their own. Snow sports, however, lagged behind other outdoor sports for the great mass of Australians until the Snowy Mountains Hydro-Electric Scheme began diverting the Snowy's waters into the Murrumbidgee River in 1949 and exposed many to the snowfields. Increased numbers then participated in the diversions of winter sport, such as downhill and cross country skiing, and tobogganing. The 1950's and 1960's saw a rapid development of the State's ski resorts in areas previously catering only for summer leisure. Today, toboggans are often motorised ("skidoos") and can be called upon for rescue operations as well as for recreation.

Left: Fishing, Tumut River, New South Wales. In the middle of last century, bream, carp and other varieties of foreign fish were introduced into Australian rivers. In addition, as far back as 1864, Dr Frank Buckland succeeded in inventing a method of cooling trout ova in ice, in readiness for release into breeding ponds. Of the several species of trout brought into Australia, the rainbow trout and the brown trout have proved especially suitable for Australian streams, and both have now been widely distributed in many of the State's rivers. It is estimated that there are about 16,000 kilometres of trout streams in this State, in the New England and central districts, and particularly in the Monaro district which includes the Snowy and Tumut Rivers. Inland waters also yield many other fresh water species, including perch, Murray cod and carp. District angling clubs now cater for the large numbers of anglers who participate in this sport.

in the early years of marriage. However, the rates gradually increased to peak in 1971 and then have generally declined.

Age specific female fertility rates form the basis of gross and net reproduction rates, which are used as a measure of the potential reproductive capacity of the female population.

The sum of the specific female birth rates at each age may be taken as the number of female children born to 1,000 women who live right through the child-bearing period and, at each year of age, experience the fertility rates shown. This number divided by 1,000 is known as the *gross reproduction rate* and is the average number of female children born to each woman passing through the child-bearing period in given conditions of fertility. The gross rate makes no allowance for the fact that not all females will live to the end of their reproductive period.

The *net reproduction rate* represents the gross reproduction rate adjusted for the effects of mortality. This rate indicates the average number of female children who will be born to each female during her lifetime, provided that current fertility remains constant and that age distribution and the mortality experience on which the life tables were based continue substantially unchanged. A net reproduction rate of unity indicates that the female population is just replacing itself and total population will ultimately become stationary.

The following table shows the gross and net reproduction rates for New South Wales in 1984 and 1985, and during the three years around the census years 1961, 1966, 1971 and 1976.

Gross and Net Reproduction Rates, New South Wales

Reproduction rate	*1960-62*	*1965-67*	*1970-72*	*1975-77*	*1984(a)(b)*	*1985(a)(b)*
Gross	1.613	1.325	1.334	1.003	0.876	p0.972
Net*(c)*	1.561	1.284	1.296	0.980	0.861	p0.956

(a) Based on estimated resident population. *(b)* The 1984 figures are significantly affected by under-registration of births with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter. *(c)* New South Wales mortality experience used for 1984 and 1985 rates. Australian mortality experience used for the three yearly rates around the census years.

NUPTIALITY

The number of ex-nuptial live births in New South Wales since 1956 is as follows:

Ex-nuptial Live Births, New South Wales

Period	*Average annual number*	*Year*	*Number*
1956-60	3,741	*1980*	10,086
1961-65	5,059	*1981*	10,977
1966-70	6,654	*1982*	11,807
1971-75	8,966	*1983*	12,446
1976-80(a)	8,787	*(c)1984*	11,871
1981-85(b)	12,163	*(c)1985*	13,712

(a) State of registration basis. *(b)* State of usual residence basis. *(c)* The 1984 figures are significantly affected by under-registration of births with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

The per cent of ex-nuptial live births to total live births in New South Wales since 1956 is as follows:

Period	*Per cent to total live births*	*Year*	*Per cent to total live births*
1956-60	4.70	*1980*	12.64
1961-65	6.10	*1981*	13.39
1966-70	8.06	*1982*	14.07
1971-75	10.00	*1983*	14.94
1976-80	11.24	*1984*	15.22
1981-85	14.65	*1985*	15.62

The proportion of ex-nuptial to total live births remained fairly constant (at about 5 per cent of live births) from 1920 to 1936. Between 1936 and 1957, the proportion generally declined but since 1958 it has increased steadily to reach the highest on record, 15.62 per cent, in 1985. This long-term upward trend is largely due to an increasing number of de-facto marriages producing children, as reflected by the growing proportion of ex-nuptial births where paternity is acknowledged.

Parental Acknowledgement

The Children (Equality of Status) Act 1976, which became operative from 1 July 1977, removed the legal disabilities of ex-nuptial children and made better provision for recording parentage information in birth records.

The father of an ex-nuptial child may, but is not obliged to, furnish acknowledgement of paternity. In 1985, 73 per cent of all ex-nuptial live births registered in New South Wales were acknowledged by the father at the time of registration.

Births Classified by Age of Mother

The number of live births to married and unmarried mothers, classified by age group of the mother, is shown in the following table for the years 1980 and 1985.

Live Births, by Age of Mother, N.S.W.

Age group (years)	*Nuptial live births*		*Ex-nuptial live births*		*All live births*	
	1980	*1985(a)*	*1980*	*1985(a)*	*1980*	*1985(a)*
Under 15	—	—	33	28	33	28
15-19	2,927	1,651	3,332	3,267	6,259	4,918
20-24	19,641	17,291	3,588	5,028	23,229	22,319
25-29	27,734	30,265	1,816	3,002	29,550	33,267
30-34	15,001	18,629	912	1,631	15,913	20,260
35-39	3,833	5,488	325	632	4,158	6,120
40-44	551	717	72	109	623	826
45 or more	28	33	8	6	36	39
Not stated	—	—	—	9	—	9
Total	**69,715**	**74,074**	**10,086**	**13,712**	**79,801**	**87,786**

(a) The 1985 figures are significantly affected by under-registration of births in 1984 with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

Similar information for single years of age is published in the annual subject bulletin *Births* (Catalogue No. 3306.1).

Births Classified by Previous Issue of Mother

The following summary shows details of the previous issue and average number of children of married women who gave birth during 1985, classified according to age of mother.

Nuptial Confinements Resulting in a Live Birth, N.S.W., 1985
Age of Mother and Previous Issue *(a)*

Age of mother (years)	*Total married mothers*	*Average number of children (b)*	*Number of married mothers with previous issue (a) numbering*					
			0	*1*	*2*	*3*	*4*	*5 or more*
Under 15	—	—	—	—	—	—	—	—
15-19	1,640	1.23	1,292	326	20	2	—	—
20-24	17,137	1.58	9,506	5,787	1,550	263	28	3
25-29	29,934	1.93	11,665	11,393	5,071	1,423	284	98
30-34	18,382	2.34	4,623	6,753	4,566	1,690	496	254
35-39	5,405	2.71	1,224	1,574	1,298	743	301	265
40 or more	741	3.34	170	161	129	101	65	115
Total	**73,239**	**2.01**	**28,480**	**25,994**	**12,634**	**4,222**	**1,174**	**735**
Per cent of total married mothers	*100.00*	—	*38.89*	*35.49*	*17.25*	*5.77*	*1.60*	*1.00*

(a) Including ex-nuptial children by the same father. Children of a former marriage and all fetal deaths are excluded. *(b)* Including children born alive at the present confinement.

Details for each year of age are published annually in the annual subject bulletin *Births* (Catalogue No. 3306.1).

Over the years, there has been a significant reduction in the size of families. The average number of children born to married mothers, to whom a live-born child was born during the year, declined steadily from 3.90 in 1901 to 1.98 in 1983 but rose marginally to 2.01 in 1984 and 1985.

In 1894, 51 per cent of the children born represented the fourth or later child. By 1907 this proportion had fallen to 39 per cent. When the information was next recorded in 1938, it had fallen to 23 per cent. The decline continued during World War II, and in 1947 the proportion was only 16.4 per cent. After 1947, the proportion gradually increased to 22.0 per cent in 1962, but has declined almost every year to 8.4 per cent in 1985.

PLURAL BIRTHS

During the year 1985, there were 955 cases of plural births (resulting in at least one live birth) registered in New South Wales. They consisted of 936 cases of twins, 17 cases of triplets and 2 cases of quadruplets. The children born live as twins numbered 1,849 (941 males and 908 females) and the children born live as triplets numbered 47 (21 males and 26 females). Of the plural births, 131 cases of twins and 1 case of triplets were ex-nuptial.

Twenty-four cases of quadruplets have been recorded — five between 1877 and 1897, one in each of the years 1913, 1930, 1950, 1953, 1956, 1962, 1968 to 1972, 1974, 1977, 1979, 1980, 1981 and 1983 and two in 1985. Two cases of quintuplets have been recorded — one in each of the years 1975 and 1982 and one case of nonuplets (nine children) was recorded, in 1971.

DEATHS

In the case of the death of any person in New South Wales, the occupier of the house or place in which the death occurs, or a relative, is responsible for ensuring that the death is registered within one month. A dead body may not be buried unless the undertaker is in possession of a certificate of registration of death, an order for burial issued by a coroner, a medical certificate of cause of death, or a notice of intention to sign a medical certificate of cause of death. A certificate issued by medical practitioners or a coroner is required to be produced to the medical referee for the crematorium prior to him authorising the cremation of a dead body.

Earlier in this chapter (in the division "Births"), it was indicated that differentiation between live births and fetal deaths (still-births) varied for registration and statistical purposes. Children who had a heart beat after delivery but did not breathe are not registered as live births, and consequently not registered as deaths by the Principal Registrar of Births, Deaths and Marriages. However, since 1 January 1968, such children are considered live born for statistical purposes and the deaths of these children are included in death statistics. Fetal deaths (still-births), as defined for statistical purposes and described later in this chapter, are excluded from general deaths statistics.

The deaths of full-blood Aboriginals which could be distinguished were excluded from the death statistics of New South Wales from 1933 to 1966, but have been included (following amendment of the Australian Constitution in 1967) from 1 January 1967. The figures for 1966 have been adjusted to include deaths of full-blood Aboriginals. In the period September 1939 to December 1941, the Australian defence personnel who died in New South Wales (256 males) were included, but New South Wales defence personnel who died outside the State were excluded. From 1 January 1942 to 30 June 1947, all deaths of Australian defence personnel, Allied defence personnel, prisoners of war, internees from overseas, and other non-civilians were excluded from the death statistics which, for that period, relate to civilians only.

Death statistics in this chapter for 1980 and later years, and cause of death statistics for 1983 and later years, are based on the State or Territory of usual residence of the deceased unless otherwise stated. More information relating to the bases of the statistics can be found in the Division "Compilation of Vital Statistics" earlier in this chapter.

The following table shows the average annual number of deaths in quinquennial periods since 1926 and the number of deaths in each of the last six years, together with crude death rates. The rates shown for 1971 to 1985 are the number of deaths per 1,000 of mean estimated resident population. These rates are based on the *estimated resident population* — the new concept adopted following the 1981 Census (see sub-division "Estimated Resident Population of N.S.W." in Chapter 3 "Population").

Deaths *(a)*, New South Wales

Period	Number of deaths (excluding fetal deaths)			Death rate(b)			Per cent of male to female rate
	Males	Females	Persons	Males	Females	Persons	
Average annual —							
1926-30	12,925	9,779	22,704	10.35	8.14	9.27	127
1931-35	12,760	9,837	22,597	9.67	7.67	8.69	126
1936-40	14,542	11,193	25,735	10.59	8.30	9.45	128
1941-45	15,383	12,424	27,807	10.75	8.70	9.73	124
1946-50	16,685	12,867	29,552	10.94	8.45	9.70	129
1951-55	18,217	13,918	32,135	10.70	8.27	9.49	129
1956-60	19,119	14,883	34,002	10.28	8.11	9.20	127
1961-65	20,866	16,648	37,514	10.26	8.27	9.27	124
1966-70	22,822	18,427	41,249	10.41	8.46	9.44	123
1971-75	22,959	18,833	41,792	9.46	7.81	8.64	121
1976-80*(c)*	22,202	18,197	40,399	8.80	7.17	7.98	123
1981-85*(d)*	22,429	18,922	41,351	p8.40	p7.04	p7.72	119
Year(d) —							
1980	22,336	18,088	40,424	8.69	6.97	7.82	125
1981	22,099	18,015	40,114	8.47	6.86	7.66	123
1982	23,086	19,441	42,527	8.73	7.31	8.02	119
1983	21,899	18,648	40,547	8.20	6.93	7.56	118
1984*(e)*	21,220	18,082	39,302	8.26	6.99	7.62	118
1985*(e)*	23,840	20,424	44,264	p8.35	p7.10	p7.73	118

(a) Full-blood Aboriginals are excluded before 1966 — see text preceding this table. *(b)* See text preceding this table. *(c)* State of registration basis. *(d)* State of usual residence basis.
(e) The 1984 figures are significantly affected by under-registration of deaths with a corresponding increase in 1985. The rate is an estimated figure based on an estimate of the total number of deaths which would have been registered in 1984 and 1985 if registration delays had not occurred — see section "Processing Delays during 1984" earlier in this chapter.

The rates shown are crude rates, with no allowance for changing age or sex composition of the population from year to year. In recent years there has been a significant reduction in mortality for most adult age groups resulting in lower crude rates.

DEATH RATES — AUSTRALIAN STATES

The next table shows the crude death rates for each of the Australian States and for Australia for each of the last four years. These rates make no allowance for the differences in sex and age composition of the respective populations.

Death Rates *(a)*, Australia

State	1982	1983	1984	p1985
New South Wales	**8.02**	**7.56**	***(c)*7.62**	***(c)*7.73**
Victoria	7.69	7.27	7.24	7.61
Queensland	7.44	6.90	6.94	7.31
South Australia	7.86	7.36	7.46	7.70
Western Australia	6.14	6.14	6.14	6.28
Tasmania	8.01	7.67	8.23	8.36
Australia *(b)*	**7.56**	**7.16**	***(c)*7.20**	***(c)*7.42**

(a) Number of deaths per 1,000 of mean estimated resident population. *(b)* Includes the Australian Capital Territory and the Northern Territory. *(c)* The death rates for N.S.W. and Australia are estimated rates based on estimates of the number of deaths which would have been registered in 1984 and 1985 if registration delays had not occurred in N.S.W. — see section "Processing Delays during 1984" earlier in this chapter.

DEATHS — AGE AND SEX

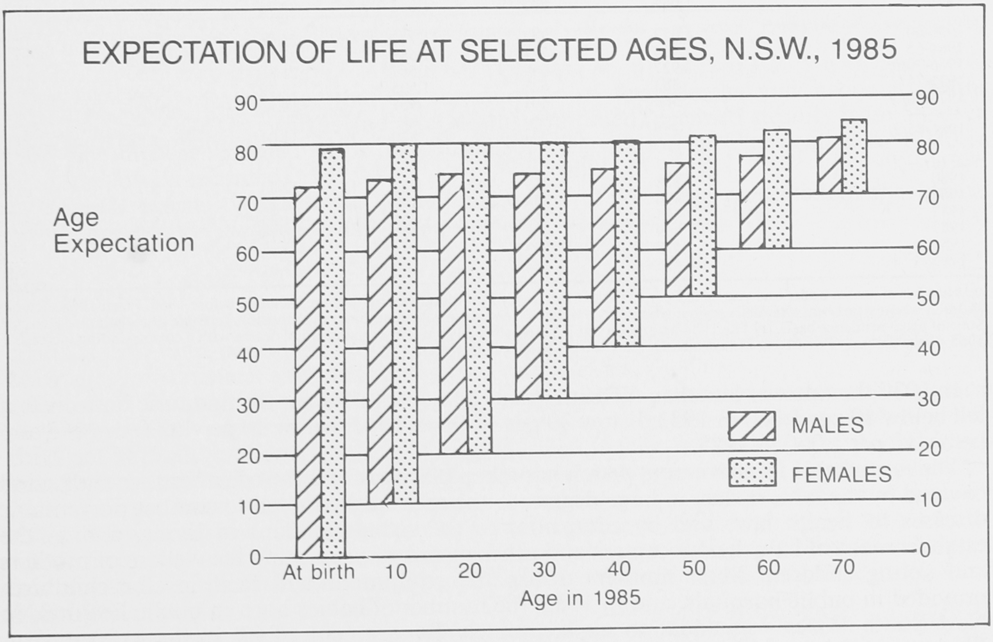
The sex and age composition of a population largely determines the level of the crude death rate. The true level of the death rate and a proper assessment of the changes in it are dependent upon an analysis of population and deaths by sex and age. The changing sex and age composition of the population is analysed in Chapter 3 "Population". The number of deaths by sex and single years of age is published in the annual subject bulletin *Deaths* (Catalogue No. 3307.1), and such data, summarised in broad age groups for the years 1980 to 1985 inclusive, are shown in the following table.

Deaths in Age Groups, New South Wales

Year	Total deaths *(a)*	*Age at death (years)* *0-4*	*5-14*	*15-24*	*25-34*	*35-44*	*45-54*	*55-64*	*65-74*	*75 or more*
					Males					
1980	22,336	629	151	706	566	722	1,938	3,965	6,476	7,171
1981	22,099	577	136	661	559	666	1,780	4,015	6,357	7,337
1982	23,086	608	134	704	624	705	1,642	4,039	6,665	7,855
1983	21,899	544	134	572	537	626	1,603	3,911	6,350	7,615
1984*(b)*	21,220	519	101	570	503	680	1,425	3,808	6,034	7,576
1985*(b)*	23,840	592	128	633	603	713	1,570	4,168	6,665	8,752
					Females					
1980	18,088	408	92	222	251	405	938	2,103	3,855	9,812
1981	18,015	418	80	202	245	371	892	2,001	3,842	9,962
1982	19,441	449	85	204	251	422	907	2,213	4,151	10,759
1983	18,648	431	77	176	213	392	873	2,171	4,016	10,298
1984*(b)*	18,082	350	75	203	199	425	769	1,989	3,957	10,113
1985*(b)*	20,424	429	80	221	274	409	842	2,171	4,175	11,823
					Persons					
1980	40,424	1,037	243	928	817	1,127	2,876	6,068	10,331	16,983
1981	40,114	995	216	863	804	1,037	2,672	6,016	10,199	17,299
1982	42,527	1,057	219	908	875	1,127	2,649	6,252	10,816	18,614
1983	40,547	975	211	748	750	1,018	2,476	6,082	10,366	17,913
1984*(b)*	39,302	869	176	773	702	1,105	2,194	5,797	9,991	17,689
1985*(b)*	44,264	1,021	208	854	877	1,122	2,412	6,339	10,840	20,575

(a) Includes a small number of cases, 16 males in 1985, where age at death was not stated. *(b)* The 1984 figures are significantly affected by under-registration of deaths with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

EXPECTATION OF LIFE


EXPECTATION OF LIFE AT SELECTED AGES, N.S.W., 1985

The expectation of life at specified ages according to the New South Wales mortality experience of the census years 1971, 1976 and 1981 and for the year 1985 are shown in the following table.

Expectation of Life, New South Wales (years)

	Males				Females			
At age	*1971*	*1976*	*1981*	*1985(a)*	*1971*	*1976*	*1981*	*1985(a)*
0	68.04	68.99	71.14	72.10	74.41	76.18	78.26	78.71
10	59.79	60.48	62.24	63.15	65.90	67.41	69.15	69.59
20	50.33	50.97	52.66	53.54	56.15	57.58	59.35	59.76
30	41.08	41.66	43.39	44.24	46.46	47.87	49.63	50.06
40	31.73	32.30	33.93	34.76	36.96	38.30	39.97	40.39
50	22.98	23.58	24.96	25.67	27.96	29.17	30.69	31.01
60	15.51	15.97	17.12	17.60	19.70	20.71	21.98	22.28
70	9.74	9.94	10.74	11.01	12.34	13.25	14.23	14.41
80	5.72	5.79	6.22	6.23	6.96	7.49	7.97	8.06
90	3.47	3.47	3.47	3.49	4.03	4.03	4.03	4.12

(a) The 1985 figures are adjusted for fluctuations in the registration of births and deaths.

INFANT MORTALITY

During the year 1985, the children who died before completing the first year of life numbered 860 which was equivalent to a rate of 9.80 per 1,000 live births. These figures exclude fetal deaths, which are not included in any of the tables relating to deaths unless specifically stated. The rates for each sex are shown in the following table in quinquennial periods since the year 1926 and for the last six years.

Infant Deaths *(a)*, N.S.W.

	Deaths under one year of age			Death rate (a)		
Period	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Average annual —						
1926-30	1,655	1,266	2,921	60.41	48.83	54.78
1931-35	1,075	811	1,886	46.59	37.05	41.95
1936-40	1,109	854	1,963	45.52	36.64	41.18
1941-45	1,147	887	2,034	39.55	32.16	35.95
1946-50	1,163	827	1,990	32.85	24.73	28.91
1951-55	1,049	803	1,852	27.76	22.33	25.11
1956-60	1,023	747	1,770	25.01	19.31	22.24
1961-65	964	721	1,685	22.64	17.88	20.32
1966-70*(b)*	927	641	1,567	21.86	15.95	18.98
1971-75	883	621	1,505	19.19	14.24	16.79
1976-80*(c)*	566	401	967	14.11	10.53	12.37
1981-85*(d)*	473	347	820	11.01	8.58	9.87
Year (d) —						
1980	528	339	867	12.83	8.77	10.86
1981	496	344	840	11.73	8.67	10.25
1982	485	366	851	11.25	8.97	10.14
1983	459	368	827	10.75	9.06	9.93
1984*(e)*	428	293	721	10.73	7.69	9.24
1985*(e)*	496	364	860	11.01	8.52	9.80

(a) Number of deaths under one year of age per 1,000 live births. *(b)* Full-blood Aboriginals are excluded before 1966. From 1968 includes children whose heart beat after delivery but who did not breathe. See text in introduction to this division. *(c)* State of registration basis. *(d)* State of usual residence basis. *(e)* The 1984 figures are significantly affected by under-registration of deaths with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

In 1930 the rate was less than 50 deaths per 1,000 live births for the first time on record; it fell below 40 per 1,000 in 1933, below 30 per 1,000 in 1947, below 20 per 1,000 in 1963 and below 10 per 1,000 in 1983.

The remarkable improvement which has taken place in the infant death rate in the period covered by the table is due, in large degree, to the measures adopted to combat preventable diseases by health laws and by education, to the rising standard of living, and to the establishment of baby health centres and other means of promoting the welfare of mothers and young children. Most mothers utilise the equipment and facilities for childbirth provided in public hospitals, and in 1985, the number of babies born in public hospitals in New South Wales was equal to approximately 94 per cent of all births in that year. Particulars of these developments are given in the chapters "Social Welfare" and "Health".

During the period reviewed, there has been a pronounced excess of the male rate over the female rate and this excess has tended to fluctuate between 23 and 37 per cent throughout the five-year average annual periods. In 1985 the excess was 29 per cent.

Of the total number of deaths of infants under one year of age in 1985, 51 per cent occurred within a week of birth, 63 per cent within one month, and 76 per cent within three months.

Over the past fifty years, there has been a great decline in mortality from gastro-enteritis and colitis and other diseases of the digestive system, and from infective and parasitic diseases. The mortality rate from congenital malformations and certain diseases peculiar to early infancy has been reduced only slightly. Deaths in this class are mainly due to causes in existence before the actual birth of the infant, and under conditions prevailing in earlier years the infant would probably have been still-born.

Detailed tables of causes of infant mortality are published annually in the annual subject bulletin *Causes of Death* (Catalogue No. 3302.1).

PERINATAL MORTALITY

As pre-natal causes are a common factor in both fetal deaths and the mortality of infants in the first few weeks subsequent to birth, it is of interest to study the combined rate for fetal deaths and the deaths of children who were born alive — a combination which has come to be known as "perinatal mortality". Statistics of perinatal mortality are shown in the following table on two bases:

(a) for fetal deaths (for definition, see text in the following sub-division "Fetal Deaths") plus early neonatal deaths (children who die within 7 days of their birth); and
(b) for fetal deaths plus neonatal deaths (children who die within 28 days of their birth).

Perinatal Deaths, N.S.W.

	Mortality per 1,000 live births and fetal deaths combined					
	Fetal deaths plus deaths under 1 week			*Fetal deaths plus deaths under 28 days*		
Year	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
1980	16.25	12.59	14.48	17.67	13.28	15.55
1981	14.89	13.16	14.05	15.85	13.71	14.81
1982	13.58	13.14	13.37	14.85	14.07	14.47
1983	12.72	11.42	12.09	13.82	12.28	13.07
1984*(a)*	13.45	11.75	12.62	14.58	12.65	13.64
1985*(a)*	11.78	10.46	11.14	13.11	11.45	12.30

(a) The 1984 and 1985 rates were affected by fluctuations in the registration of vital events — see section "Processing Delays during 1984" earlier in this chapter.

The perinatal death rate (that is, the number of fetal deaths and neonatal deaths combined per 1,000 live births and fetal deaths combined) declined steadily from 58.49 in 1936 (the highest recorded since the compulsory registration of fetal deaths) to 12.30 in 1985 (the lowest recorded).

Perinatal mortality figures for years subsequent to 1935 are presented in the annual subject bulletin *Perinatal Deaths* (Catalogue No. 3303.1).

FETAL DEATHS

Registration of still-births (fetal deaths) has been compulsory since 1935. A register of still-births is kept for a period of 2 to 3 years, by the Principal Registrar of Births, Deaths and Marriages for statistical and medical research purposes only.

Prior to 1 January 1968, a still-born child was defined, for both registration and statistical purposes, as "any child of seven months gestation or over, not born alive, including any child not born alive which measures at least fourteen inches, but excluding any child which actually breathed". From 1 January 1968, to accord with international recommendations, beating of the heart was adopted in lieu of breathing as the criterion of a live birth for statistical purposes and, from that date, any child registered as still-born (i.e. as a fetal death) whose heart beat after the complete expulsion or extraction from the mother was excluded from the statistics of fetal deaths and counted as a live birth; these numbered 31 in 1968 and 44 in 1969.

From 1 January 1969, under amended legislation, a still-born child is defined, for registration purposes, as a child who is of at least twenty weeks gestation, or at least 400 grams weight, at delivery and has not breathed after delivery. The current statistical definition of a still-born child is the same as the legal definition except that the criterion of beating of the heart is used in lieu of breathing. The change resulted in an estimated increase of 26 per cent in the number of still-births registered in 1969.

The number of fetal deaths registered in New South Wales in 1985 was 555 (293 males and 262 females).

The ex-nuptial fetal death rate is usually much higher than the nuptial rate. In 1985, the rate (fetal deaths per 1,000 of live births and fetal deaths combined) was 9.59 and 5.71 for ex-nuptial and nuptial fetal deaths respectively.

Fetal deaths, New South Wales

Nuptiality	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
			Number			
Nuptial —						
Males	306	264	249	247	241	227
Females	223	249	262	210	241	196
Ex-nuptial —						
Males	79	94	96	73	93	66
Females	68	79	78	56	67	66
Total	**676**	**686**	**685**	**586**	**642**	**555**
		Rate per 1,000 of live births and fetal deaths combined				
Nuptial	7.57	7.21	7.07	6.45	7.30	5.71
Ex-nuptial	14.38	15.63	14.60	10.31	13.39	9.59
Total	**8.44**	**8.34**	**8.14**	**7.03**	**8.24**	**6.32**

The percentage of ex-nuptial to total fetal deaths in each of the last six years is as follows:

1980	*1981*	*1982*	*1983*	*1984*	*1985*
21.75	25.22	25.40	22.01	24.92	23.78

The number of male fetal deaths per 100 female fetal deaths in each of the last six years is as follows:

1980	*1981*	*1982*	*1983*	*1984*	*1985*
132.30	109.15	101.47	120.30	108.44	111.83

The masculinity (number of males per 100 females) of fetal deaths is usually considerably higher than that of live births — the average annual for the five year period 1981 to 1985 was 109.7 compared with 105.5 for live births.

Statistics of fetal deaths for each of the years subsequent to 1935 are presented in the annual subject bulletin *Perinatal Deaths* (Catalogue No. 3303.1).

CAUSES OF DEATH

The classification of causes of death in Australia has been based, since 1907, on the classification introduced by the International Statistical Institute in 1893 and periodically revised by international commissions in 1900, 1909, 1920, 1929, 1938, 1948, 1955, 1965, and 1975 — now known as the International Classification of Diseases (I.C.D.).

The Ninth Revision (1975) was adopted for use from 1 January 1979. This revision incorporated many changes which restrict comparability of cause of death statistics for years before 1979 with those for 1979 and later years, particularly in diseases of the respiratory and urinary systems and neonatal deaths (as well as fetal deaths). In the latter case it has been determined by the World Health Organisation that for neonatal mortality the general concept of "underlying cause" should not apply but rather the cause of neonatal death should be assigned to the main manifest condition in the child. Consequently, comparison with statistics for earlier years, which include maternal conditions as a cause of neonatal death, is severely restricted.

The International Classification (Ninth Revision) code number for each cause or group of causes is generally shown in parentheses in the heading to relevant tables in this section.

Until 1983, statistics of causes of death in New South Wales related to deaths registered in the State irrespective of the State or Territory of usual residence. From 1 January 1983, causes of death statistics for the State unless specifically mentioned, are compiled and presented in respect of those persons whose usual residence was New South Wales and whose deaths were registered in Australia. The effect of this change on the comparability of the causes of death statistics presented in this Year Book, with earlier years, is generally not significant.

The following table shows deaths of New South Wales residents during 1985, classified according to the abbreviated mortality list adopted by the World Health Organisation in 1976, and the rates per million of mean estimated resident population (see the sub-section "Estimated Resident Population of N.S.W." in Chapter 3 "Population") for these causes. More detailed statistics are contained in the annual subject bulletin *Causes of Death* (Catalogue No. 3302.1).

Causes of Death *(a)*, N.S.W., 1985

Cause of death (a)	*International classification code number*	*Number of deaths*	*Proportion of total deaths (per cent)*	*Rate (b)*
Intestinal infectious diseases	001-009	13	—	2
Tuberculosis	010-018	10	—	2
Whooping cough	033	1	—	—
Meningococcal infection	036	4	—	1
Tetanus	037	1	—	—
Septicaemia	038	88	0.2	16
Smallpox	050	—	—	—
Measles	055	2	—	—
Malaria	084	—	—	—
All other infectious and parasitic diseases	*(c)*	95	0.2	17
Malignant neoplasm of stomach	151	489	1.1	89
Malignant neoplasm of colon	153	1,106	2.5	202
Malignant neoplasm of rectum, rectosigmoid junction and anus	154	361	0.8	66
Malignant neoplasm of trachea, bronchus and lung	162	2,158	4.9	394
Malignant neoplasm of skin	172,173	364	0.8	66
Malignant neoplasm of female breast	174	758	1.7	138
Malignant neoplasm of cervix uteri	180	148	0.3	27
Malignant neoplasm of prostate	185	580	1.3	106
Leukaemia	204-208	395	0.9	72
Other malignant neoplasm	*(d)*	3,767	8.5	688
Benign neoplasms and neoplasms of unspecified nature	210-239	112	0.3	20
Diabetes mellitus	250	597	1.3	109
Nutritional marasmus	261	4	—	1
Other protein-calorie malnutrition	262,263	22	—	4
Anaemias	280-285	83	0.2	15
Meningitis	320-322	21	—	4
Acute rheumatic fever	390-392	—	—	—
Chronic rheumatic heart disease	393-398	130	0.3	24
Hypertensive disease	401-405	468	1.1	85
Acute myocardial infarction	410	8,792	19.9	1,606
Other ischaemic heart disease	411-414	3,546	8.0	648
Other forms of heart disease	415,416,420-429	2,453	5.5	448
Cerebrovascular disease	430-438	5,382	12.2	983
Atherosclerosis	440	454	1.0	83
Other diseases of the circulatory system	417,441-459	747	1.7	136
Pneumonia	480-486	579	1.3	106
Influenza	487	196	0.4	36
Bronchitis, emphysema and asthma	490-493	899	2.0	164
Other diseases of the respiratory system	460-478,494-519	1,727	3.9	315
Ulcer of stomach and duodenum	531-533	286	0.6	52
Appendicitis	540-543	6	—	1
Chronic liver disease and cirrhosis	571	446	1.0	81
Nephritis, nephrotic syndrome and nephrosis	580-589	475	1.1	87
Hyperplasia of prostate	600	39	0.1	7
Pregnancy with abortive outcome	630-639	1	—	—
Direct obstetric deaths	640-646,651-676	2	—	—
Other complications of pregnancy, childbirth and puerperium	647,648	—	—	—
Congenital anomalies	740-759	366	0.8	67
Birth trauma	767	11	—	2
Hypoxia, birth asphyxia and other respiratory conditions	768-770	182	0.4	33
Other conditions originating in the perinatal period	764-766,771-779	159	0.4	29
Signs, symptoms and ill-defined conditions	780-799	279	0.6	51
All other diseases	Rem.240-799	2,705	6.1	494
Motor vehicle traffic accidents	E810-E819	1,051	2.4	192
Accidental falls	E880-E888	325	0.7	59
All other accidents and adverse effects	E800-E807 E820-E879 E900-E949	607	1.4	111
Suicide and self-inflicted injury	E950-E959	640	1.4	117
Homicide and injury purposely inflicted by other persons	E960-E969	112	0.3	20
All other external causes	E970-E999	20	—	4
Total deaths	**000-E999**	**44,264**	**100.0**	**8,083**

(a) Classified in accordance with the *International Classification of Diseases*, Ninth Revision (1975). *(b)* Number of deaths per 1,000,000 of mean estimated resident population. *(c)* Numbers 020-032, 034, 035, 039-049, 051-054, 056-083, 085-139. *(d)* Numbers 140-150, 152, 155-161, 163-171, 175-179, 181-184, 186-203

The incidence of the individual diseases has varied with the changing age and sex composition of the population, and degenerative diseases associated with ageing now account for a high proportion of the deaths. New drugs and improved preventive measures have greatly reduced the mortality from infectious diseases and diseases of early childhood, thus increasing the number of persons reaching the higher age groups, where the risk from degenerative diseases is naturally greatest. Of the deaths associated with ageing in 1985, diseases of the heart accounted for 14,921 deaths, malignant neoplasms for 10,126, cerebrovascular disease for 5,382, hypertensive disease for 468, and nephritis, nephrotic syndrome, and nephrosis for 475 deaths. Altogether, these five causes were responsible for 70.9 per cent of the total deaths in the State during 1985.

Diseases of the Heart

Diseases of the heart have accounted for over one-third of the deaths in New South Wales in recent years — in 1985, the number of such deaths was 14,921, or 33.7 per cent of all deaths. The group diseases of the heart includes rheumatic heart disease, ischaemic heart disease, and other diseases of the heart such as endocarditis and myocarditis. In 1985, 12,338 deaths (or 82.7 per cent of the total deaths in this group) were due to ischaemic heart disease (conditions of the coronary artery). Since most diseases of the heart are of a degenerative nature (i.e. due to ageing), the majority of deaths from these causes occur at advanced ages — in 1985, 68.4 per cent were at ages 70 or more, and 87.9 per cent at ages 60 or more. However, despite an ageing population the crude death rate has generally declined.

The following table shows the number of deaths and death rates from diseases of the heart in New South Wales for the last six years.

Diseases of the Heart (I.C.D. Codes 393-398, 410-416, 420-429)

Year	*Number of deaths*			*Proportion of total deaths (per cent)*	*Death rate (a)*		
	Males	*Females*	*Persons*		*Males*	*Females*	*Persons*
1980	7,986	6,207	14,193	35.2	30.99	23.92	27.44
1981	7,919	6,151	14,070	35.2	30.34	23.41	26.86
1982	8,213	6,617	14,830	35.0	31.06	24.86	27.95
1983	7,790	6,421	14,211	35.0	29.16	23.87	26.51
1984*(b)*	7,349	6,105	13,454	34.2	27.26	22.48	24.86
1985*(b)*	8,107	6,814	14,921	33.7	p29.72	p24.80	p27.25

(a) Number of deaths per 10,000 of mean estimated resident population. *(b)* The 1984 figures may be significantly affected by under-registration with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

Malignant Neoplasms

In the following two tables, statistics for malignant neoplasms include neoplasms of lymphatic and haematopoietic tissues, to which 962 deaths were assigned in 1985.

Malignant neoplasms are annually responsible for more deaths than any other cause except diseases of the heart. During the year 1985 they accounted for 22.9 per cent of the total deaths in New South Wales.

Malignant Neoplasms (I.C.D. Codes 140-208)

Period	*Number of deaths*			*Proportion of total deaths (per cent)*	*Annual death rate (a)*
	Males	*Females*	*Persons*		
1956-60	13,272	11,243	24,515	14.4	13.27
1961-65	15,101	12,507	27,608	14.7	13.62
1966-70	17,510	13,987	31,497	15.3	14.40
1971-75	20,160	15,392	35,552	17.0	14.70
1976-80	22,625	17,100	39,725	19.7	15.70
1981-85	26,079	19,852	45,931	22.3	17.14
1980	4,831	3,623	8,454	21.0	16.35
1981	4,880	3,588	8,468	21.2	16.17
1982	5,099	3,884	8,983	21.2	16.93
1983	5,135	4,049	9,184	22.7	17.13
1984*(b)*	5,169	4,001	9,170	23.3	16.94
1985*(b)*	5,796	4,330	10,126	22.9	p18.49

(a) Number of deaths per 10,000 of mean estimated resident population (mean estimated population prior to 1971). *(b)* The 1984 figures may be significantly affected by under-registration with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

Although fatal malignant neoplasms occur at all ages the disease is essentially one of older ages. Of the persons who died from malignant neoplasms during 1985, 85.1 per cent were aged 55 years or more and 62.4 per cent were 65 or more. Of those aged under 45 years, neoplasms of the lymphatic and haematopoietic tissues accounted for 22.9 per cent of all malignant neoplasm deaths in this age group, compared with 9.5 per cent for all ages.

A classification of deaths from malignant neoplasms during 1985 according to the site of the neoplasm, sex and age group is shown in the following table.

Malignant Neoplasms (I.C.D. Codes 140-208): Deaths Classified According to Site of Disease, Sex, and Age Group, N.S.W., 1985

		Age group (years)										
Site of disease		*Total, all ages*	*0 to 44*	*45 to 49*	*50 to 54*	*55 to 59*	*60 to 64*	*65 to 69*	*70 to 74*	*75 to 79*	*80 to 84*	*85 or more*
Malignant neoplasm of —												
Lip, oral cavity and pharynx	M	177	6	5	15	26	38	25	34	14	8	6
	F	60	-	2	4	8	9	8	11	5	7	6
Colon and rectum	M	753	16	34	41	82	111	131	115	104	72	47
	F	714	23	17	44	56	67	80	103	105	104	115
Stomach	M	275	9	6	16	23	35	37	49	42	38	20
	F	214	11	6	6	10	22	21	36	33	35	34
Pancreas	M	234	9	5	12	25	41	36	35	34	23	14
	F	212	5	1	4	12	17	36	39	38	28	32
Other digestive organs and peritoneum	M	302	6	8	22	29	53	44	58	51	17	14
	F	243	5	4	5	24	26	26	42	42	28	41
Trachea, bronchus and lung	M	1,697	26	38	105	209	307	286	315	239	126	46
	F	461	17	14	26	51	53	83	96	61	39	21
Other parts of respiratory system and intrathoracic organs	M	142	6	3	9	15	32	23	25	19	4	6
	F	17	1	1	-	2	1	1	4	1	6	-
Breast	M	3	1	-	-	-	-	-	2	-	-	-
	F	758	84	54	78	88	91	85	86	70	61	61
Skin	M	252	50	10	19	21	33	32	27	19	23	18
	F	112	16	5	13	11	5	12	11	11	11	17
Cervix and uterus	F	251	25	5	21	19	30	34	40	23	23	31
Other female genital organs	F	237	7	11	17	27	37	33	38	22	22	23
Prostate	M	580	2	2	7	10	31	64	107	157	113	87
Other male genital organs	M	(a)20	7	1	-	2	3	-	-	4	2	-
Urinary organs	M	316	7	9	20	25	38	48	55	55	30	29
	F	167	2	5	8	11	13	24	24	31	22	27
Brain and nervous system	M	165	24	14	19	21	26	27	22	6	5	1
	F	143	29	9	5	14	19	21	17	17	8	4
Other and unspecified sites	M	352	40	16	19	31	49	45	55	37	37	23
	F	307	28	8	12	22	23	39	44	59	37	35
Neoplasms of - Lymphatic and haematopoietic tissues	M	528	86	15	22	47	79	78	75	71	24	31
	F	434	51	10	17	36	59	44	60	70	61	26
Total — Males		(a)5,796	295	166	326	566	876	876	974	852	522	342
Females		4,330	304	152	260	391	472	547	651	588	492	473
Persons		(a)10,126	599	318	586	957	1,348	1,423	1,625	1,440	1,014	815

(a) Includes one case of age unknown.

Fatal malignant neoplasms of the digestive organs (the largest group with 29.1 per cent of total malignant neoplasm deaths) are situated most frequently in the stomach or in the colon and rectum (including rectosigmoid junction and anus), the numbers in 1985 being 489 and 1,467 respectively. The respiratory system was the site of 31.7 per cent of the fatal malignant neoplasms among men in 1985, compared with only 11.0 per cent among women. In women, the breast ranked next to the digestive organs as the most common site, accounting for 17.5 per cent of the deaths.

Cerebrovascular Diseases

Cerebrovascular diseases are the third most important cause of death in New South Wales following diseases of the heart and malignant neoplasms. In 1985, there were 5,382 deaths due to cerebrovascular disease, accounting for 12.2 per cent of all deaths.

Cerebrovascular diseases ("strokes") include haemorrhage, embolism, thrombi and other conditions of the intracranial arteries which cause various degrees of brain impairment.

As with all diseases of the circulatory system, cerebrovascular disease is more common with advanced age. In 1985, 79.9 per cent of all deaths due to cerebrovascular disease were at age 70 or more; 92.7 per cent were at age 60 or more. The death rate has declined steadily over the past 30 years from 13.23 per 10,000 population in 1956 to 9.83 in 1985.

The following table shows the number of deaths and death rates for cerebrovascular disease in New South Wales for the last six years.

Cerebrovascular Diseases (I.C.D. Codes 430-438)

Year	Number of deaths			Proportion of total deaths (per cent)	Death rate (a)		
	Males	*Females*	*Persons*		*Males*	*Females*	*Persons*
1980	2,230	3,230	5,460	13.6	8.65	12.45	10.56
1981	2,243	3,258	5,501	13.8	8.59	12.40	10.50
1982	2,257	3,403	5,660	13.4	8.54	12.79	10.67
1983	2,078	3,072	5,150	12.7	7.78	11.42	9.61
1984*(b)*	2,006	2,944	4,950	12.6	7.44	10.84	9.15
1985*(b)*	2,145	3,237	5,382	12.2	p7.86	p11.78	p9.83

(a) Number of deaths per 10,000 of mean estimated resident population. *(b)* The 1984 figures may be significantly affected by under-registration with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

External Causes of Injury and Poisoning

The cause of death classification *External Causes of Injury and Poisoning* (E800-E999) includes accidents, poisonings, suicides, and homicides. Deaths from these causes in 1985 totalled 2,755 (1,947 males and 808 females), and accounted for 6.2 per cent of the total deaths in New South Wales.

The number of deaths from various types of external causes for the last six years are shown in the following table.

External Causes of Injury and Poisoning (I.C.D. Codes E800-E999)

Year	Number of deaths			
	Motor vehicle accidents	*All other accidents*	*Suicides*	*Total, external causes (a)*
	Males			
1980	1,008	624	411	2,133
1981	977	581	412	2,059
1982	951	639	434	2,106
1983	687	590	399	1,761
1984*(b)*	655	507	385	1,648
1985*(b)*	759	593	499	1,947
	Females			
1980	363	334	135	880
1981	321	362	134	854
1982	356	325	151	874
1983	269	300	139	740
1984*(b)*	260	271	123	714
1985*(b)*	309	313	141	808

(a) Includes deaths due to adverse effects in therapeutic use, homicide and legal intervention, injury undetermined whether accidentally or purposely inflicted, surgical and medical complications and misadventures and injuries resulting from the effects of war. *(b)* The 1984 figures may be significantly affected by under-registration with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

The rates of deaths from external causes of injury and poisoning per 10,000 of mean estimated resident population since 1980 were:

	1980	*1981*	*1982*	*1983*	*1984(a)*	*1985(a)*
Males	8.28	7.89	7.97	6.59	6.11	p7.14
Females	3.39	3.25	3.28	2.75	2.63	p2.94

(a) The 1984 figures may be significantly affected by under-registration with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

Of the 2,755 deaths from external causes in New South Wales in 1985, motor vehicle accidents accounted for 1,068 deaths (38.8 per cent); other accidents, 906 deaths (32.9 per cent); suicides, 640 deaths (23.2 per cent); and other external causes, 141 deaths (5.1 per cent).

Accidents accounted for 1,974 deaths which was slightly less than three- quarters of all deaths due to external causes. Of all accidents in 1985, 54.1 per cent or 1,068 deaths, were due to motor vehicle accidents. In the period 1983 to 1985 there has been an average of 327 (25.0 per cent) fewer deaths than in 1982. This reduction may have been due to random breath testing which was introduced from 17 December 1982.

Of the 906 deaths from accidents other than motor vehicle accidents, 35.9 per cent were due to falls, 11.5 per cent to drowning, 9.9 per cent to accidental poisoning, 6.8 per cent to suffocation and foreign bodies, 6.5 per cent to accidents caused by fire, 3.5 per cent to rail accidents and 3.4 per cent to accidents in water transport.

Each year more than twice as many males as females die through "accidental causes" which was the principal cause of death in the age group 1 year and under 40 years, accounting for 43 per cent of male deaths and 29 per cent of female deaths in this age group. In the age group 15-24 years, they were responsible for 56.7 per cent of total male deaths of which three-quarters were due to motor vehicle accidents.

In 1985 there were 640 deaths due to suicide, compared with 508 in 1984. The mode of suicide usually adopted by men is either poisoning, shooting, or hanging. Women, as a general rule, avoid weapons and resort mostly to poison. Of all the suicides in this State in 1985, 40.3 per cent were by the agency of poison (of which 48.4 per cent were by gas), 26.7 per cent by shooting, 16.1 per cent by hanging, 3.6 per cent by jumping from heights, 3.3 per cent by drowning, and 10.0 per cent by other means. The mortality of males from suicide is more than three times that of females.

Accidental Drowning and Submersion

In 1985, deaths due to accidental drowning and submersion (including drownings in water transport accidents and drownings due to cataclysm) accounted for 7.1 per cent of all accidental deaths. Of these deaths, 40.0 per cent were due to falling or wandering into pools, rivers, the ocean, lakes, and other and unspecified locations, 20.0 per cent were due to drownings as a result of water transport accidents and 18.6 per cent occurred whilst swimming. In the last six years, an average of 137 people per year have died from drowning, the number of male deaths to female deaths representing a ratio of five to one. In the same six year period, 29 people have drowned when swept off rocks and 14 people have drowned whilst attempting a rescue.

There were 20 children aged under 5 years who drowned in 1985, of whom 17 drowned after falling or wandering into pools, rivers, lakes, containers and unspecified locations. Of these 17 drownings, 8 occurred in swimming pools compared with 6 in 1984.

Accidental Drowning and Submersion *(a)* (I.C.D. Codes E830, E832, E908-E910)

Circumstances of drowning	*1980*	*1981*	*1982*	*1983*	*1984(c)*	*1985(c)*
Whilst swimming in —						
Swimming pool	4	6	4	5	1	3
Surf beach	9	11	10	11	9	10
River, estuary, harbour, bay, ocean	23	15	13	17	14	11
Lake, lagoon, dam, waterhole	3	5	2	4	3	2
Other and unspecified locations	1	—	2	—	1	—
Fell or wandered into —						
Swimming pool	17	9	21	12	6	9
River, estuary, harbour, bay, ocean	35	26	29	24	17	30
Lake, lagoon, dam, waterhole	10	11	8	8	10	10
Other and unspecified locations	7	3	7	5	3	7
Fell from bridge, wharf, etc.	1	4	5	1	2	1
Whilst attempting a rescue	4	—	3	1	3	3
Swept off rocks, breakwater	2	5	7	4	4	7
Whilst water-skiing, surfboard-riding, skin-diving, or spear-fishing	7	1	5	6	4	9
Water transport accidents	17	20	17	30	31	28
Environmental factors *(b)*	—	—	2	—	—	—
Drowned in bath tub	4	9	5	5	3	3
Other and unspecified circumstances	3	1	2	10	13	7
Total accidental drowning and submersion	**147**	**126**	**142**	**143**	**124**	**140**

(a) Figures in this table relate to deaths registered in New South Wales. *(b)* Only includes deaths due to accidental drowning and submersion classified to I.C.D. codes E908 and E909. *(c)* The 1984 figures may be significantly affected by under-registration with a corresponding increase in 1985 — see section "Processing Delays during 1984" earlier in this chapter.

MARRIAGES

Marriages may be celebrated only by a minister of religion registered as an authorised celebrant, by an authorised civil celebrant, or by a designated State officer. A Notice of Intended Marriage must be given to the celebrant at least one full calendar month before the marriage unless the period of notice is shortened for special circumstances, by a prescribed authority (i.e. State officers, Local Registrars of Births and Deaths, Stipendiary Magistrates, and certain Chamber Magistrates and Justices of the Peace). A minister or civil celebrant, or State officer (including local registrars) who celebrates a marriage must transmit an official certificate of the marriage to the Principal Registrar of Births, Deaths and Marriages at Sydney within 14 days for registration. The Marriage Act 1961 provides that persons 18 years of age or more (21 years of age or more prior to 1 July 1973) are free to marry without consent of any kind. For males aged 16 or 17 years and females aged 14 or 15 years a judge or magistrate may, in exceptional circumstances, make an order authorising the marriage. Females aged 16 or 17 years require the consent of parents or guardians for marriage, or (where this is not obtainable) of a magistrate or some other prescribed authority — this consent by a judicial authority is subject to appeal. Under no circumstances can a male below the age of 16 years or a female below the age of 14 years marry, nor can a male and a female who are both under marriageable age (i.e. males under 18 years of age and females under 16 years of age) marry each other. For further details of the legislation under which marriages are solemnised and registered in New South Wales see the introduction to this chapter.

The average annual number of marriages registered in New South Wales and the crude marriage rates (see following paragraph) for periods since 1956 are as follows:

Period	*Average annual number of marriages*	*Marriage rate*	*Period*	*Average annual number of marriages*	*Marriage rate*
1956-60	28,433	7.70	*1971-75*	40,313	8.33
1961-65	31,788	7.86	*1976-80*	37,284	7.37
1966-70	39,216	8.96	*1981-85*	39,550	7.54

The number of marriages registered and crude rates per 1,000 of mean estimated resident population in recent years are shown below. The crude marriage rates are based on the estimated resident population — the new concept adopted following the 1981 Census (see the sub-division "Estimated Resident Population of N.S.W." in Chapter 3 "Population").

Year	*Number of marriages*	*Marriage rate*	*Year*	*Number of marriages*	*Marriage rate*
1982	41,955	7.91	*1984(a)*	33,938	7.35
1983	39,995	7.46	*1985(a)*	41,183	p7.21

(a) The 1984 and 1985 figures are significantly affected by late registration of marriages, the effects of which were not completely overcome by the end of 1985. The rates are estimated rates based on estimates of the number of marriages which would have been registered in 1984 and 1985 if registration delays had not occurred — see section "Processing Delays during 1984" earlier in this chapter.

The marriage rate, after rising to over 10 per 1,000 in 1946 and 1947 following the return and demobilisation of servicemen, declined steadily to 7.68 in 1956. It fluctuated between 7.50 and 7.95 during the period 1957 to 1964, then rose to 9.48 in 1970, reflecting the increase in the proportion of the population aged 20-24 years (resulting from increased numbers of births in the latter half of the nineteen-forties). The rate generally fell in each year between 1970 and 1978. Since the 1978 low of 7.10 (the lowest rate recorded since the early "thirties), the rate increased steadily to 7.91 in 1982 but has since declined to 7.21 in 1985.

The crude marriage rate for Australia reflects similar fluctuations to New South Wales. The rate in 1985 was 7.22 per 1,000 of mean estimated resident population.

MARITAL STATUS AT MARRIAGE

The following table shows particulars relating to first marriages and remarriages in the years since 1980.

Marital Status at Marriage, N.S.W.

Year	*Bridegrooms* Single	Widowed	Divorced	Total	*Brides* Single	Widowed	Divorced
1980	29,647	1,190	8,128	*38,965*	30,017	1,403	7,545
1981	30,940	1,132	8,607	*40,679*	31,301	1,314	8,064
1982	32,023	1,102	8,830	*41,955*	32,382	1,281	8,292
1983	30,329	1,089	8,577	*39,995*	30,902	1,176	7,917
1984(a)	25,628	871	7,439	*33,938*	26,092	1,000	6,846
1985(a)	31,305	1,036	8,842	*41,183*	31,950	1,133	8,100
			Percentage of total married				
1980	76.1	3.1	20.9	*100*	77.0	3.6	19.4
1981	76.1	2.8	21.2	*100*	76.9	3.2	19.8
1982	76.3	2.6	21.0	*100*	77.2	3.1	19.8
1983	75.8	2.7	21.5	*100*	77.3	2.9	19.8
1984	75.5	2.6	21.9	*100*	76.9	2.9	20.2
1985	76.0	2.5	21.5	*100*	77.6	2.8	19.7

(a) The 1984 and 1985 figures are significantly affected by late registration of marriages — see section "Processing Delays in 1984" earlier in this chapter.

Remarriage was greater among widowers than widows up to 1945, except for a short period after World War I, when a temporary reversal of this trend was due to the remarriage of war widows. However, in the years immediately following World War II, the number of widows remarrying slightly exceeded the number of widowers. In recent years the difference has been more significant as shown in the previous table.

Remarriages of divorcees increased steadily over the years until 1953, and remained fairly constant until 1965, when the steady increase re-commenced. The sudden increase in 1976 was the result of the large number of divorced persons in the population following the introduction of the *Family Law Act 1975* which came into effect on 5 January 1976. Since 1945, remarriages of divorcees have exceeded those of widowers and widows in each year. The ratio of divorcees remarrying to widowers and widows remarrying has increased steadily since 1965 when it was 1.8 to 1; in 1985 this ratio was 7.9 to 1.

AGE AT MARRIAGE

The age at marriage of brides and bridegrooms who were married during 1985, classified by marital status, is shown in the following table. Further details of the age and marital status of persons marrying are given in the annual subject bulletin *Marriages* (Catalogue No. 3305.1).

Marriages, N.S.W., 1985: Age at Marriage and Marital Status

Age at marriage (years)	*Marital status at marriage* — *Bridegrooms* Single	Widowed	Divorced	Total	*Brides* Single	Widowed	Divorced	Total
Under 20	604	—	—	604	3,776	—	6	3,782
20 to 24	13,224	3	116	13,343	17,387	18	449	17,854
25 to 29	11,388	19	1,138	12,545	7,586	71	1,860	9,517
30 to 34	3,967	42	2,085	6,094	2,093	76	2,054	4,223
35 to 44	1,703	112	3,344	5,159	909	213	2,507	3,629
45 to 59	337	328	1,780	2,445	160	372	1,086	1,618
60 or more	82	532	379	993	39	383	138	560
All ages	**31,305**	**1,036**	**8,842**	**41,183**	**31,950**	**1,133**	**8,100**	**41,183**

A percentage age distribution of bridegrooms and brides in each of the last six years is given in the next table.

Percentage Age Distribution of Bridegrooms and Brides, N.S.W.

Year	*Bridegrooms* Under 20 years	20 to 24 years	25 to 29 years	30 to 44 years	45 years and over	*Brides* Under 20 years	20 to 24 years	25 to 29 years	30 to 44 years	45 years and over
1980	3.34	39.11	26.73	21.95	8.86	16.67	44.39	17.64	15.34	5.96
1981	2.90	38.30	27.39	22.93	8.48	15.43	44.70	18.21	16.23	5.43
1982	2.54	37.03	28.31	24.08	8.03	13.46	44.85	19.71	16.75	5.23
1983	2.14	35.59	28.66	25.28	8.33	11.40	45.23	20.53	17.49	5.35
1984	1.71	33.56	30.07	26.24	8.41	10.42	44.15	21.75	18.14	5.54
1985	1.47	32.40	30.46	27.32	8.35	9.18	43.35	23.11	19.07	5.29

The following table shows the average age at marriage of bridegrooms and brides in each of the last six years. The difference between the average ages at first marriage of males and females is between 2 and 3 years, the males being the older. There is a tendency for this difference to be slowly reduced. Men who remarry are, on the average, a little under 4 years older than women who remarry.

Average Age at Marriage, N.S.W.
(years)

	Average age at marriage of—					*Average age at marriage of—*			
	Bridegrooms		*Brides*			*Bridegrooms*		*Brides*	
Year	*Total*	*Single*	*Total*	*Single*	*Year*	*Total*	*Single*	*Total*	*Single*
1980	29.4	25.8	26.5	23.2	*1983*	29.9	26.3	27.0	23.9
1981	29.5	26.0	26.6	23.4	*1984*	30.2	26.6	27.2	24.1
1982	29.6	26.1	26.7	23.6	*1985*	30.3	26.8	27.4	24.4

The average ages at marriage for all bridegrooms and brides vary little from year to year although there was a gradual decline until 1972. They then began to increase until 1976 when there was a significant upturn due to the increase in persons re-marrying. This coincided with the introduction of the *Family Law Act 1975*, which came into effect on 5 January 1976. The average age at marriage of bridegrooms and brides in 1985 was 30.3 and 27.4 years respectively — the highest figures ever recorded. The average ages at first marriage, on the other hand, fell by over 2 years during the years 1942 to 1972 but since then have steadily increased and are now generally comparable to those of the early 'forties.

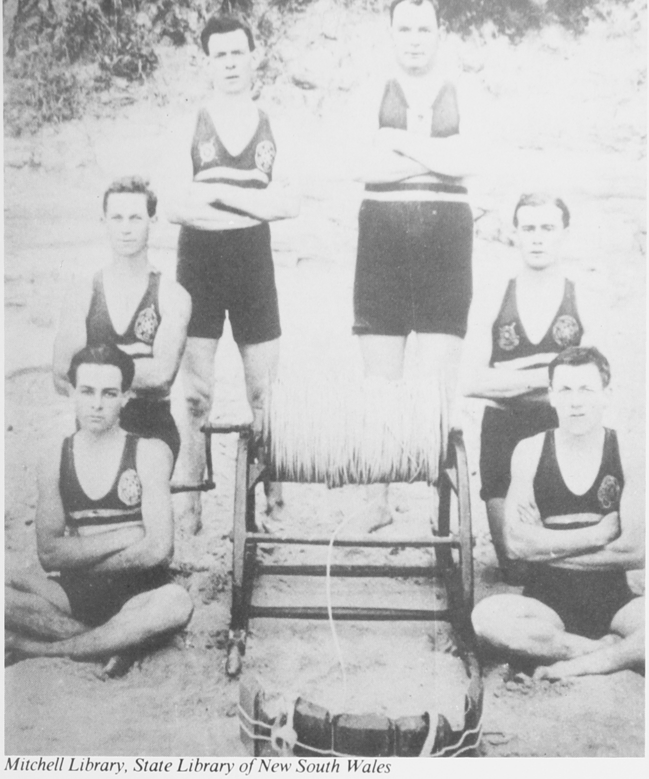
The modal age for marriage (i.e. the age having the highest number of marriages) is lower than the average age. For brides the modal age remained steady over a long period at 21 years but fell to 20 years during the 'seventies. It returned to 21 years in 1980 and reached 22 years in 1985 (the highest ever recorded). The modal age for bridegrooms was also steady over many years at 22 years (except for the occasional year when it fell by a year) but increased to 23 years in 1980 and has remained at that level.

MARRIAGES ACCORDING TO DENOMINATION OF THE CEREMONY

Marriages, N.S.W., 1985: Rites Used in Marriage Ceremony: Total Marriages and Celebrants

	Marriages		*N.S.W. ministers of religion and civil celebrants registered at 1 January 1985*
Rites used in marriage ceremony	*Number*	*Proportion (per cent)*	
Christian Denominations —			
Anglican Church of Australia	6,842	16.6	973
Assemblies of God in Australia	231	0.6	95
Baptist Union of Australia	757	1.8	405
Churches of Christ in Australia	186	0.5	114
Greek Orthodox Archdiocese of Australia	658	1.6	31
Jehovah's Witnesses	126	0.3	60
Presbyterian Church of Australia	1,273	3.1	195
Roman Catholic Church	8,650	21.0	1,659
Salvation Army	272	0.7	309
Uniting Church in Australia	4,330	10.5	588
Other Recognised Denominations	1,422	3.5	784
Other Christian *(a)*	288	0.7	121
Total, Christian	*25,035*	*60.8*	*5,334*
Non-Christian Denominations —			
Islam	294	0.7	12
Jewry	116	0.3	28
Other Recognised Denominations	21	0.1	9
Other Non-Christian *(a)*	80	0.2	8
Total, Non-Christian	*511*	*1.2*	*57*
Civil —			
State Registered Officers	5,052	12.3	..
Other Civil Celebrants *(b)*	10,585	25.7	175
Total, Civil	15,637	38.0	..
Total	**41,183**	**100.0**	**5,566**

(a) Ministers of religion not affiliated with recognised religious bodies or organisations, appointed under Section 39(2) of the *Marriage Act 1961*. *(b)* Other persons registered under Section 39(2).



Mitchell Library, State Library of New South Wales

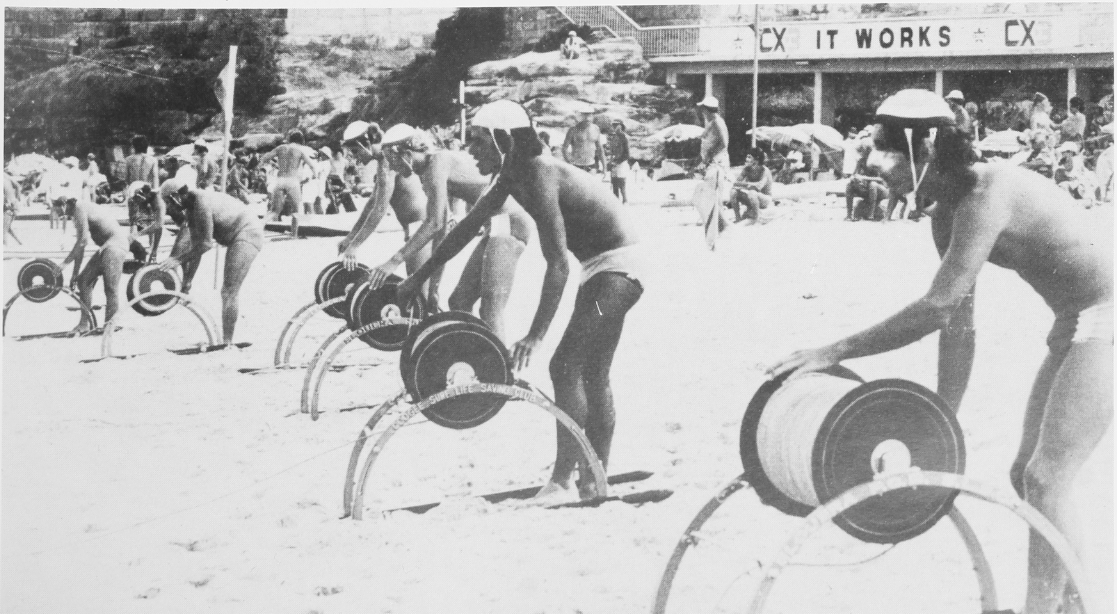
Early lifesavers from Bulli Surf Club assembled with a surf reel. The reel is a piece of basic surf rescue equipment from which a surf-line, attached to a belt, is wound. Many surf-rescue methods, such as the reel, were developed by the captain of Australia's first registered surf lifesaving club, the Bondi Surf Bathers Life Saving Club which started in 1906, — the first practical use of a reel was at Bondi Beach in December of that year. Australian surf lifesaving clubs were the first in the world and unlike some other countries, their work is voluntary.

"Manly Daily", by courtesy of N.S.W., Surf Life Saving Association

A helicopter rescue operation at North Narrabeen in November 1975. Helicopters have been used for surf rescue work and in spotting sharks since 1973, when the Sydney Surf Life Saving Association Helicopter Rescue Service was formed. The service was originally intended only for use by surf lifesaving clubs, but has since extended to cover the whole community for search, rescue (other than surf) and medical services (including the transportation of spinal injury patients to hospital). The service operates 24 hours a day, 7 days a week, and by early 1987 had flown about 4,000 missions in and around Sydney.

Surf lifesavers sacrifice their spare time to provide valuable rescue services to the community. They learn techniques in order to save lives, perform weekend beach patrol throughout the summer months and keep watch for sharks. They also frequently compete in surf carnivals designed to perfect rescue techniques as well as providing a challenge for the competitors. In the photograph below, surf lifesaving clubs participate in a surf-belt race at a carnival at Coogee Beach in the early 1980's. In this event, (championships of which began in 1919) competitors swim to a buoy at sea, wearing the surf belt while a partner operates the reel.

Surf Life Saving Association of Australia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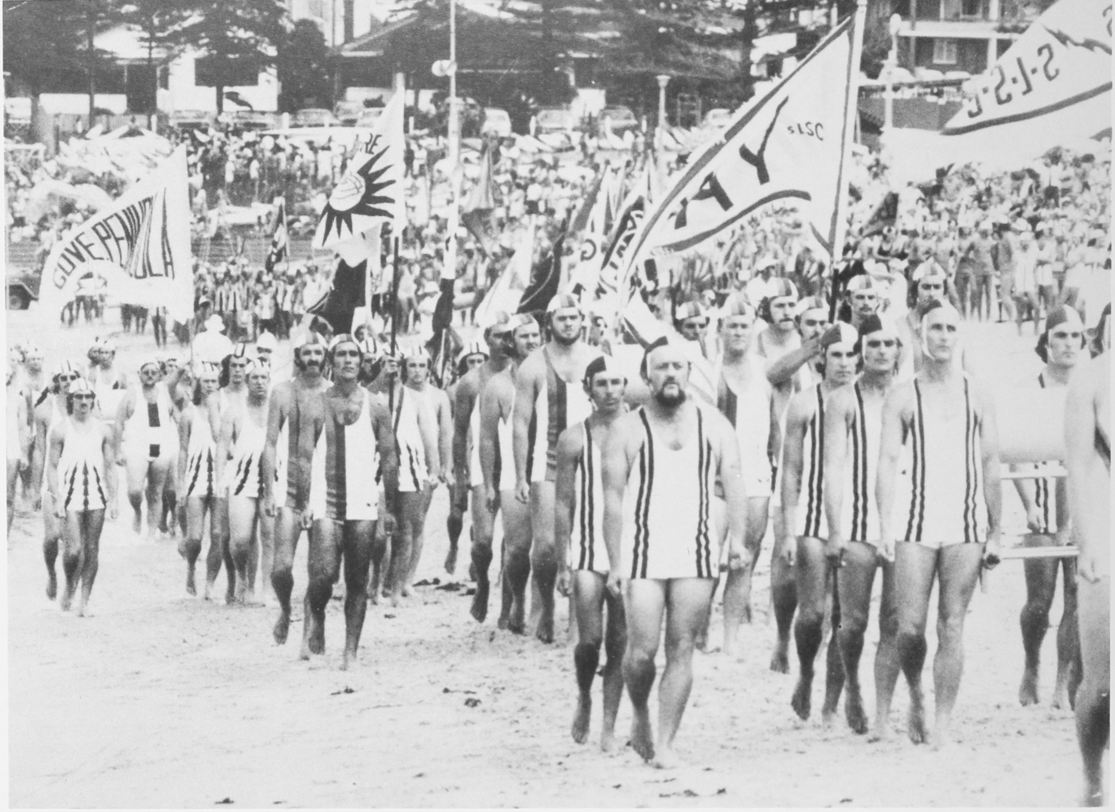
COOGEE SURF LIFE SAVING CLUB

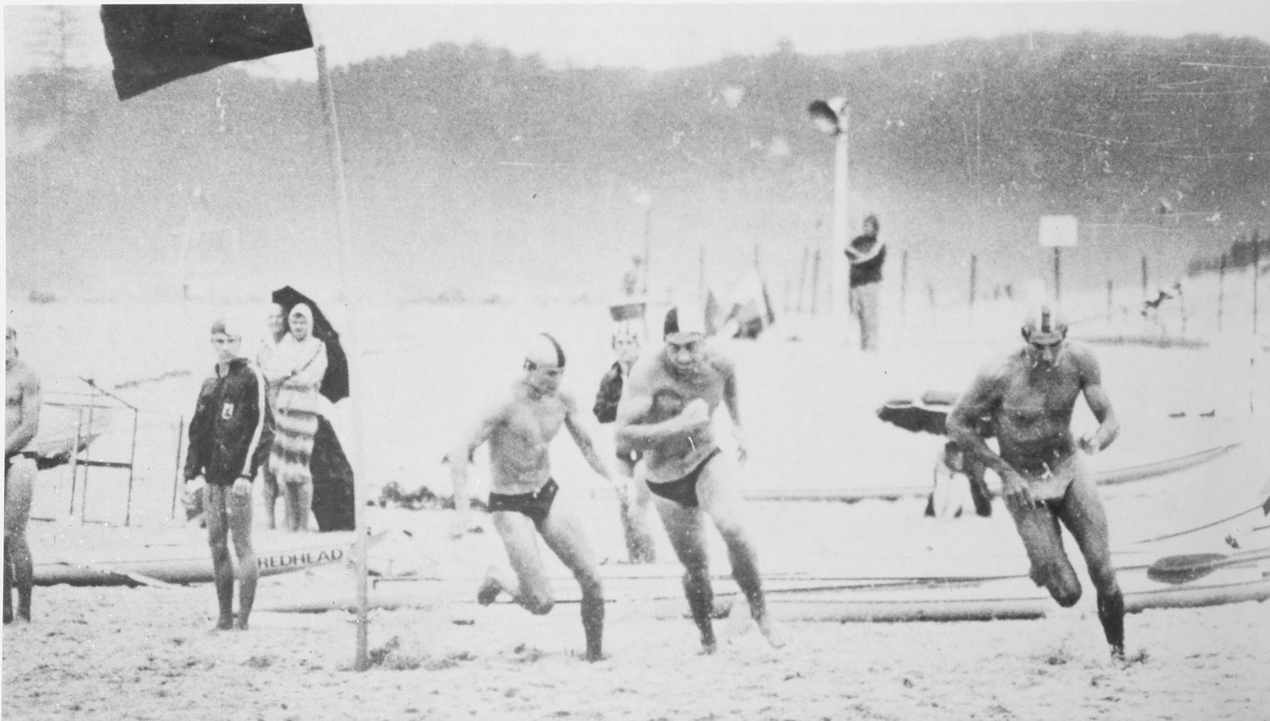


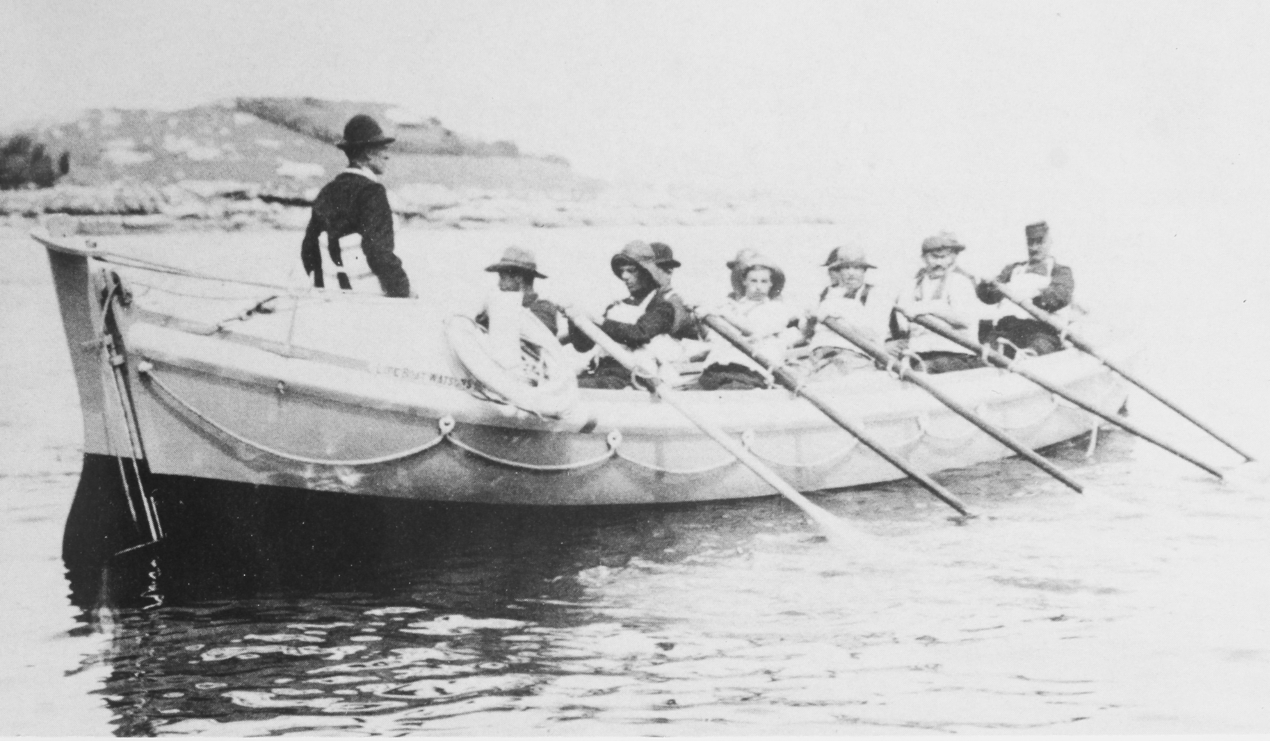
Surf Life Saving Association of Australia

March past at the Australian surf lifesaving championships at Dee Why in 1975. The march comprises competitors from the many surf lifesaving clubs (S.L.S.C.) around the country. These competitors are tested on surf-rescue skills, including team reel and line mock rescues, endurance swimming, rowing, surf ski paddling and board riding.

An early iron-man race. The annual iron-man championships were introduced in the 1966-7 season and all events are conducted by the Surf Life Saving Association of Australia (S.L.S.A.) under their own stringent safety and medical conditions. The competition is a multiple event comprising races in surf-ski paddling, beach running (pictured), surf swimming and surf board paddling with competitors gaining points in each race. Today, the competition comprises a 42 km marathon on sand and water.

Surf Life Saving Association of Australia





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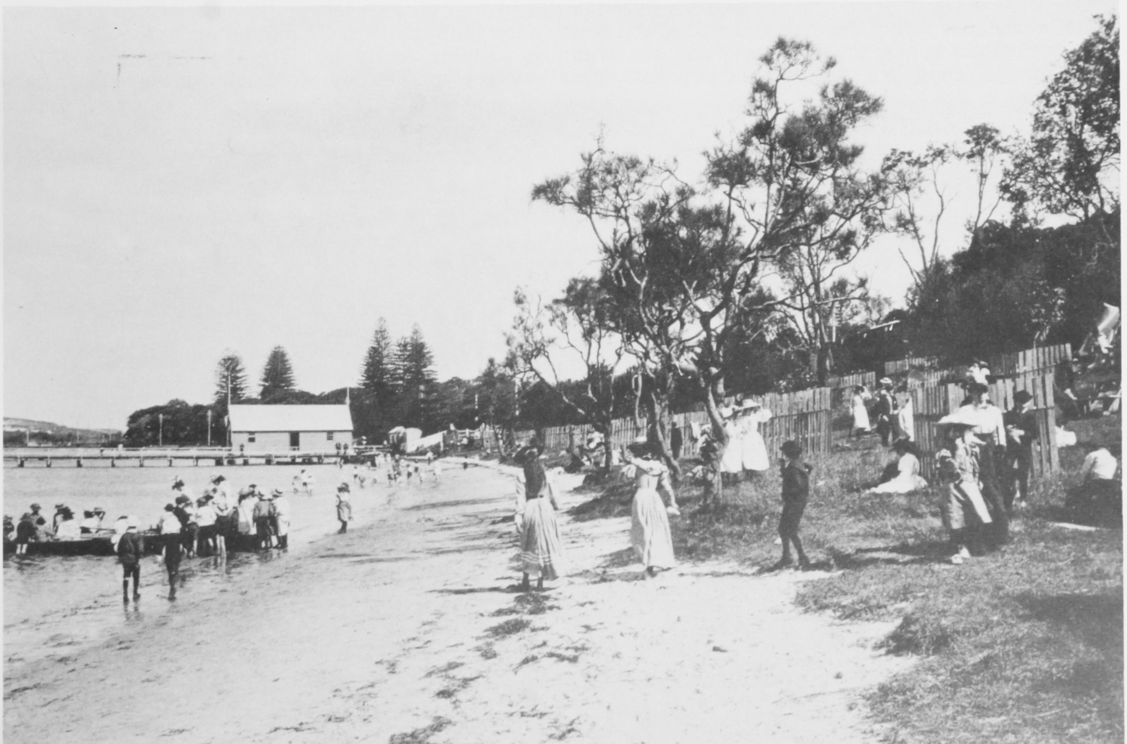
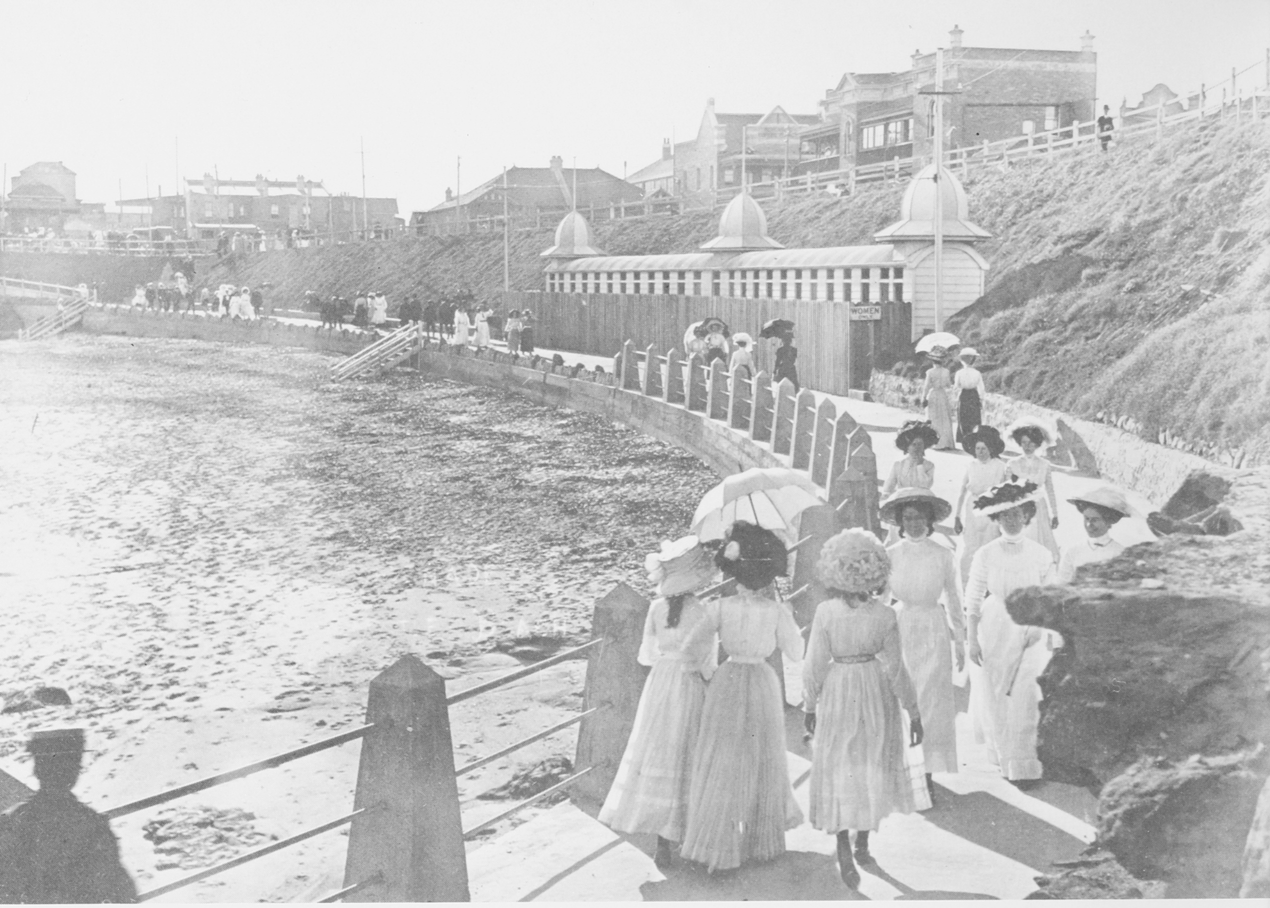
The Watson's Bay Rescue Service Lifeboat photographed in the early 1900's. The Rescue Lifeboat was installed at Watson's Bay in 1870 in recognition of the urgent need for a rescue service to be established near the Heads. This was in addition to the Pilot Service, also based at Watson's Bay, which had been established in order to bring vessels safely into Sydney Harbour. The Pilot Service, however, had not prevented some disasters from occurring and it became obvious that vessels were liable to be wrecked at the Heads even with a pilot aboard. The Rescue Lifeboat was manned by local volunteers and operated from a permanent lifeboat shed.

Below: Rose Bay, Sydney Harbour's largest bay, taken towards the end of the 19th century. This view, from the western end looking towards Rose Bay Pier, shows the popularity of this beach at that time. The beach and parkland today hardly exist due to serious erosion. In the left centre distance, can be seen a sandhill, the foot of which is now Rose Bay shopping area.

Mitchell Library; State Library of New South Wales

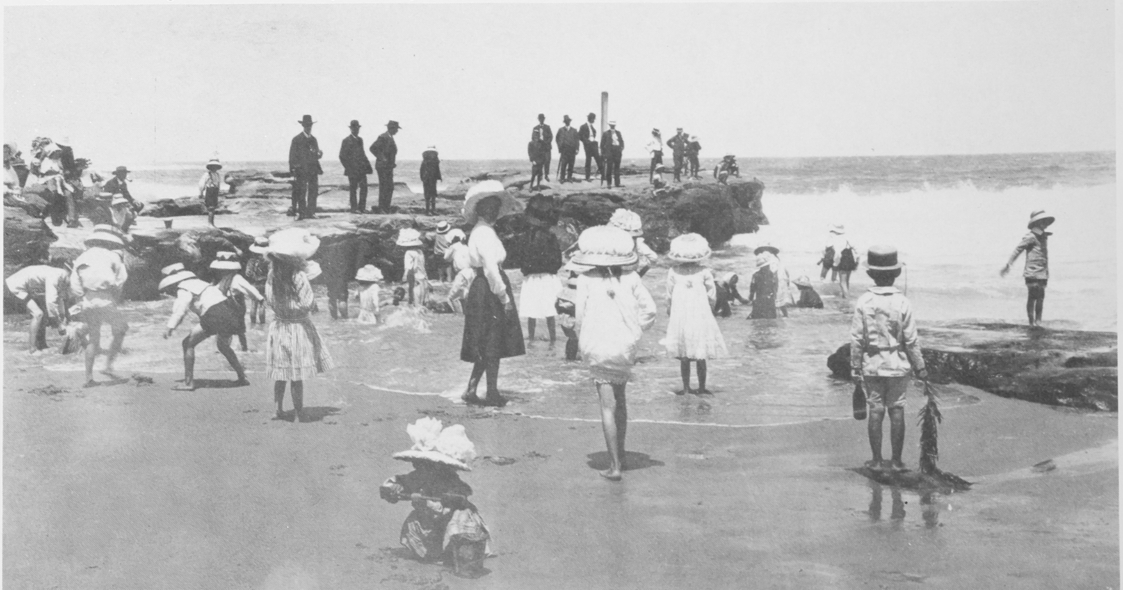


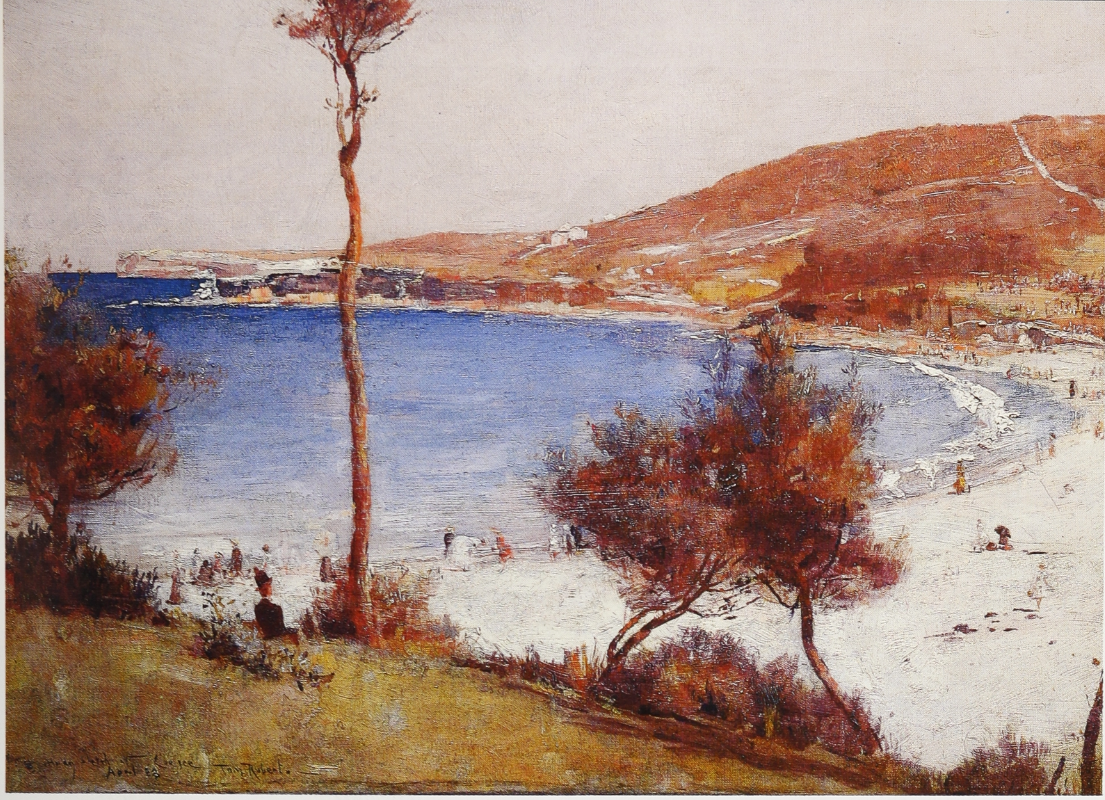


Geological and Mining Museum, N.S.W. Department of Mineral Resources

Two views of Ocean Beach, Newcastle taken about 1890. *Above:* groups of people walk along the beach promenade, a popular pastime during this period, particularly as public sea-bathing was illegal between the sunlight hours of 6 a.m. and 8 p.m. from 1833 to 1902. This law was quite effective in keeping people out of the water largely due to the stigma of indecency, a widespread fear of the ocean and the thought that bathing was associated with disease and ill health. The regulatory swimming costume for women in fashion, until the turn of the century, was a neck-to-knee design, usually made of flannel or serge, and comprising a belted tunic with short sleeves worn over long trousers with shoes, stockings and a cap. An overskirt and frilled sleeves and ankles were added to the design. For men, a long woollen singlet or shirt worn over knee length drawers emerged as suitable attire in the latter part of the 19th century and remained in use until the 1920's. Children under the age of eight were not obliged to wear the regulatory two piece swimming costume. As shown in the photograph (*below*), girls bathed or paddled in their petticoats and large hats were always kept on. The boys wore sailor suits and straw hats.

Geological and Mining Museum, N.S.W. Department of Mineral Resources



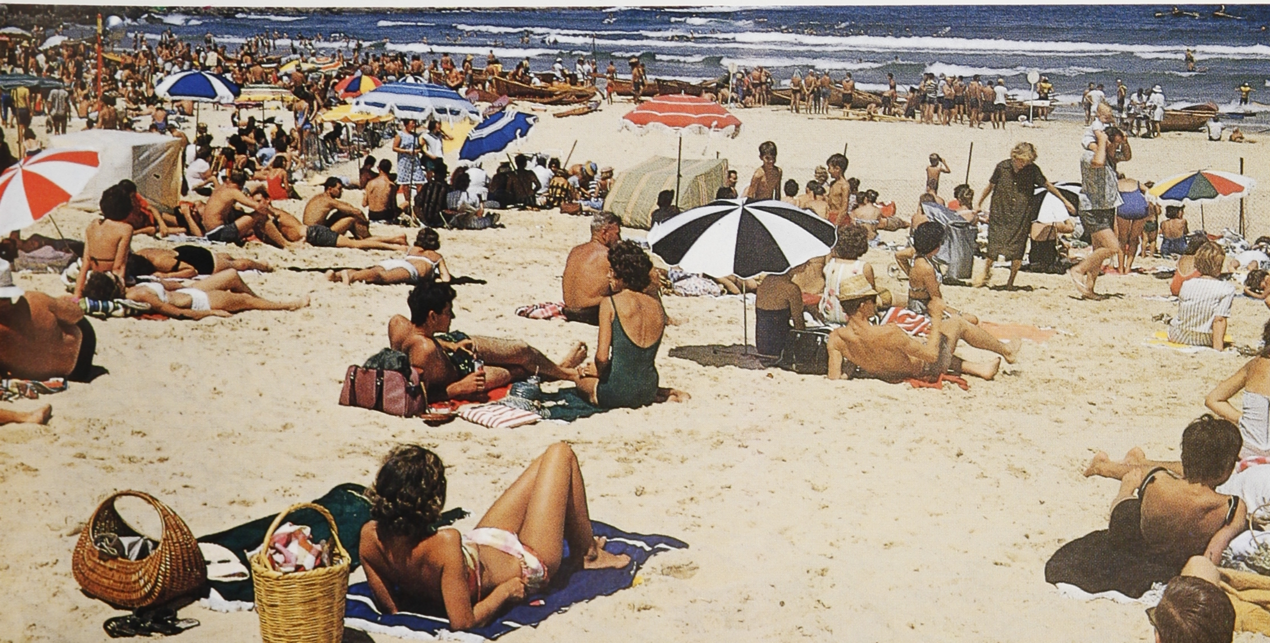


Oil on canvas, 40.3 x 55.9cm, Art Gallery of New South Wales, purchased 1954

Oil painting by Australian artist Tom Roberts titled "Holiday sketch at Coogee" painted in April 1888. It shows Coogee Beach and part of what is now the suburb of Coogee before its urbanisation. In the background on the left is the promontory at Malabar on which the ANZAC Rifle Range now stands. A description of Coogee Beach published in "Australia, The First Hundred Years" at the time this picture was painted states, "To the eastward of the village of Randwick, and on the shore, is Coogee Bay. The whole beach is reserved for the public from point to point, and on both rocky headlands there are liberal spaces in frequent use as picnic grounds. The beach is a popular promenade and a favourite bathing-place, the tramway running down to its edge bringing on holidays multitudes of the city folk to enjoy the freshness of the pure salt water and the Pacific breezes".

Sun bakers relax at Freshwater, one of Sydney's northern beaches, in February 1962. In the background, a surf carnival is taking place with lifesavers preparing for a surf-boat race, while spectators watch from behind barriers. More recently, surfing as a spectator sport has become far more popular with some carnivals attracting thousands of people.

A. McLean

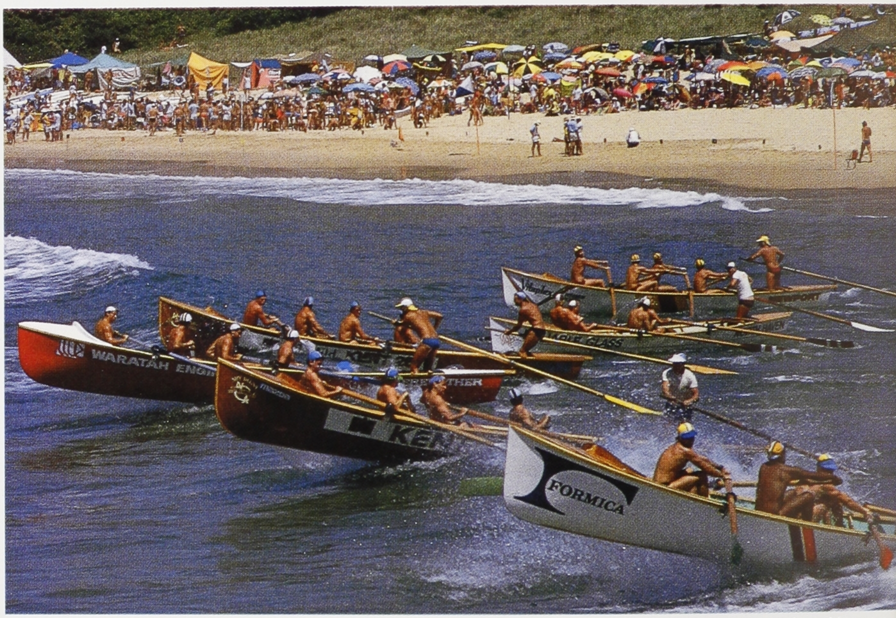


Left: Spectators watch the 1987 Coca-Cola Surf Classic at North Steyne Beach, Manly. The trials, renowned as the toughest surf trials on the international tour, attracted 104 competitors from 8 countries, but only 16 were able to qualify for the main event on finals day. Finals day of the surf classic (the final contest of the season's world surfing tour) attracted about 30,000 spectators, an Australian record for a Grand Prix Surfing event. Sydney's Tom Carroll won the contest receiving $12,000 in prize money.

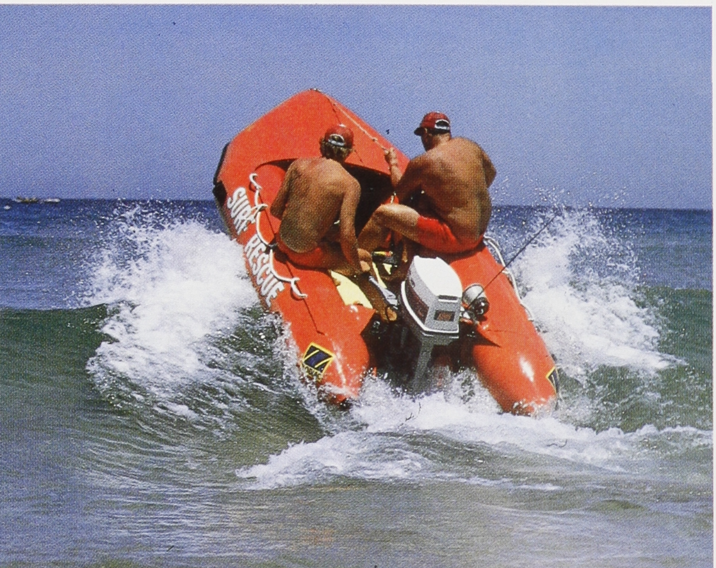
Coca-Cola Bottlers, Sydney

Right: A surfboat race at a carnival at Freshwater Beach on the Australia Day Weekend in 1986. These modern surfboats are a great improvement on the "Surf King", the first boat designed for use in the Australian surf, launched at Bronte Beach in 1906. It had a catamaran-type design and consisted of two kapok-filled, torpedo shaped tubes of wood, tin and painted canvas with a crew of three sitting between the tubes. It was the main attraction at Australia's first properly organised surf carnival held at Manly in 1908, but later it proved unsuitable for heavy seas.

Rob Webb



Rob Webb



Left: An inflatable surf rescue boat owned by the Illawarra Branch of the S.L.S.A. taken at the Illawarra Branch championships in February 1986. Experiments took place in the use of inflatable rescue boats in N.S.W. in the late 1960's and early 1970's when launching and rescue techniques through the surf, using the craft as an inshore rescue boat, were developed. Since the mid 1970's, standards of training and operation have been set. Inflatable rescue boats, commonly known as "rubber duckies", have proved themselves to be the fastest method of rescue off beaches and have had an enormous impact on surf rescue techniques and equipment. Competition at carnivals involving the inflatable rescue boat has greatly improved the prowess of drivers and crew to perform rescues, and this has been reflected in the number of difficult rescues performed by such crews. In 1987, about 30 per cent of all rescues performed by the S.L.S.A. involved the use of inflatable rescue boats.

Of the marriages performed in New South Wales in 1985, the number celebrated by ministers of religion was 25,546 or 62 per cent of the total. Since 1971, when 86 per cent of all marriages were performed by ministers of religion, there has been a significant swing towards "non-religious" ceremonies (particularly those performed by civil celebrants) which accounted for 38 per cent of all marriages in 1985. The denominations listed in the following table are recognised under Section 26 of the *Marriage Act 1961* (i.e. religious bodies or organisations to which authorised marriage celebrants are affiliated) and to which marriages were classified according to the rites of the ceremony.

DIVORCES

Under the *Family Law Act* 1975, the irretrievable breakdown of the marriage is the only ground on which application for dissolution of marriage can be made. This ground is established by the husband and wife having lived apart for 12 months or more and there being no reasonable likelihood of reconciliation. Applications for nullity of marriage under Family Law Legislation must be on the ground that the marriage is void because of failure to meet a legal requirement, such as that neither party be already lawfully married to another person at the time of marriage. There is no provision for judicial separation under Family Law legislation. Information on the Family Court of Australia and further details of the legislation which covers the dissolution of marriages can be found in the introduction to this chapter.

Successful applicants for a decree of dissolution of marriage under Family Law legislation are initially granted a decree nisi. This becomes absolute after one month unless it is rescinded, appealed against, or the Court has not declared its satisfaction as to proper arrangements having been made for the welfare of children involved.

Information relating to the interpretation of Divorce statistics can be found in the Division "Compilation of Vital Statistics" earlier in this chapter.

The divorce rate (number of divorces per 1,000 of mean estimated population) rose from 0.2 in 1901 to peak at 4.5 in 1976 but has since declined each year to 2.2 in 1985. (In the interpretation of divorce rates it must be kept in mind that a large and varying proportion of the population used in the denominator is unmarried or below the minimum age of marriage.) Prior to the introduction of the Family Law Act in 1976 the highest number of divorces granted in any year in New South Wales was 10,723 (in 1975). The annual number of divorces rose to 22,147 in 1976 with the implementation of the new Act which changed the grounds for divorce. Since that year the annual number of divorces has generally decreased and fell by 10 per cent in 1985 to 11,871 (the lowest figure since 1975).

The following table shows the number of divorces (dissolutions of marriage) in New South Wales since 1956.

Divorces *(a)* New South Wales

Period	*Average annual (number)*	*Year*	*Annual totals (number)*
1956-60	3,185	*1980*	13,449
1961-65	3,205	*1981*	14,532
1966-70	4,936	*1982*	14,378
1971-75	7,548	*1983*	14,023
1976-80	*(b)*15,556	*1984*	13,203
1981-85	13,601	*1985*	11,871

(a) Decrees of dissolution of marriage made absolute. Excludes nullities and judicial separations.*(b)* The *Family Law Act 1975* came into operation from 5 January 1976, repealing the Matrimonial Causes legislation and changing the grounds for divorce.

In 49.1 per cent of the divorces granted in 1985, the duration of marriage was 9 years or less. In 10.3 per cent of divorces the duration of marriage was 25 years or more. The following table shows the number of divorces in New South Wales in 1985, classified by duration of marriage and the ages of the parties at the date of marriage. Further details of persons divorcing are given in the annual subject bulletin *Divorces* (Catalogue No. 3304.1).

Of the divorces granted in 1985, 4,962 (or 42 per cent) did not involve any children under 18 years of age. The remaining 6,909 divorces involved 13,195 children, or 1.9 children per divorce. The following table shows the number of divorces in New South Wales in 1985, classified by the number of children under 18 years of age and the age of the youngest child at the time of application for divorce.

Divorces, N.S.W., 1985: Duration of Marriage and Ages of Parties at Marriage

Duration of marriage (years) (a)	*Age of party at marriage (years)*							*Total divorces*	
	Under 20	*20 to 24*	*25 to 29*	*30 to 39*	*40 to 49*	*50 or more*	*Not stated*	*Number*	*Percent*
				Husband					
Under 5	124	1,079	684	546	184	152	15	2,784	23.5
5 to 9	183	1,285	767	516	192	84	14	3,041	25.6
10 to 14	241	1,129	500	210	48	29	4	2,161	18.2
15 to 19	194	929	325	135	36	10	2	1,631	13.7
20 to 24	110	556	214	124	22	3	4	1,033	8.7
25 or more	89	672	316	125	4	5	7	1,218	10.3
Total husbands									
Number	941	5,650	*(b)*2,809	1,656	486	283	46	*(b)*11,871	100.0
Per cent	*7.9*	*47.6*	*23.7*	*13.9*	*4.1*	*2.4*	*0.4*	*100.0*	..
				Wife					
Under 5	503	1,169	474	401	131	83	23	2,784	23.5
5 to 9	771	1,239	471	383	114	47	16	3,041	25.6
10 to 14	792	960	236	118	34	12	9	2,161	18.2
15 to 19	610	771	145	71	22	3	9	1,631	13.7
20 to 24	390	468	103	53	9	1	9	1,033	8.7
25 or more	436	574	126	60	8	1	13	1,218	10.3
Total wives									
Number	3,502	*(b)*5,184	1,555	1,086	318	147	79	*(b)*11,871	100.0
Per cent	*29.5*	*43.7*	*13.1*	*9.1*	*2.7*	*1.2*	*0.7*	*100.0*	..

(a) The interval between the date of marriage and the date of divorce (i.e. the date the decree of dissolution was made absolute). *(b)* Includes 3 divorces where duration of marriage was not stated.

Divorces, N.S.W., 1985: Age of Youngest Child and Number of Children *(a)*

Age of youngest child (years)	*Number of children of marriage*				*Total divorces*	
	1	*2*	*3*	*4 or more*	*Number*	*Proportion (per cent)*
Under 1	31	29	10	7	77	0.6
1	153	103	40	16	312	2.6
2	301	178	78	27	584	4.9
3	244	240	111	44	639	5.4
4	229	224	115	32	600	5.1
5	170	235	118	46	569	4.8
6	113	221	99	30	463	3.9
7	107	205	91	18	421	3.5
8	90	198	80	31	399	3.4
9	73	185	81	23	362	3.0
10	71	192	79	14	356	3.0
11	92	179	58	20	349	2.9
12	109	190	67	8	374	3.2
13	120	181	58	5	364	3.1
14	110	145	21	3	279	2.4
15	145	108	11	4	268	2.3
16	187	51	5	1	244	2.1
17	173	23	15	4	215	1.8
Not stated	16	14	3	1	34	0.3
Total divorces involving children	*2,534*	*2,901*	*1,140*	*334*	*6,909*	*58.2*
Total divorces not involving children	..	..	..	..	*4,962*	*41.8*
Total divorces	..	..	..	..	**11,871**	**100.0**

(a) Children are only included if they were aged under 18 years and unmarried at the time of application for divorce.

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Australian Demographic Statistics Quarterly* (Catalogue No. 3101.0), *Australian Demographic Trends* (3102.0), *Births, Australia* (3301.0), *Deaths, Australia* (3302.0), *Causes of Death, Australia* (3303.0), *Perinatal Deaths, Australia* (3304.0), *Marriages, Australia* (3306.0), *Divorces, Australia* (3307.0).

A.B.S. Publications (N.S.W. Office): *Pocket Year Book* (1302.1), *Monthly Summary of Statistics* (1305.1), *Causes of Death, N.S.W.* (3302.1), *Perinatal Deaths, N.S.W.* (3303.1), *Divorces, N.S.W.* (3304.1), *Marriages, N.S.W.* (3305.1), *Births, N.S.W.* (3306.1), *Deaths, N.S.W.* (3307.1).

5

SOCIAL WELFARE

COMMONWEALTH GOVERNMENT SOCIAL WELFARE BENEFITS

The principal social service and repatriation benefits provided by the Commonwealth Government are age, invalid, wives', widows', carers', veterans' disability and service pensions, sheltered employment, rehabilitation and mobility allowances, supporting parents' benefits, family allowances, orphans' pensions, handicapped children's allowances, family income supplements, and unemployment, sickness and special benefits. The provision of these benefits is administered by the Department of Social Security in terms of the *Social Security Act 1947*, except for veterans' disability and service pensions which are administered by the Department of Veterans' Affairs.

ASSISTANCE TO THE AGED

Age Pensions

Age pensions are payable to men aged 65 years or more and to women aged 60 years or more, who reside in and are physically present in Australia at the time of claim for a pension, and have resided in Australia continuously (apart from absences in certain circumstances) for at least 10 years.

A wife's pension is payable to the wife of an age, invalid or service pensioner or a recipient of a sheltered employment or rehabilitation allowance, if she is not eligible for a pension or allowance in her own right.

From March 1985, payment of age pensions has been subject to both income and assets tests. Pension entitlement is first assessed under the income test and then under the assets test. The test which produces the lower rate of pension applies.

The maximum single and married rates of age pensions are adjusted each June and December in accordance with movements in the Consumer Price Index. Age pensioners may be eligible for a range of fringe benefits and other concessions, which are described later in the section "Fringe Benefits and Concessions".

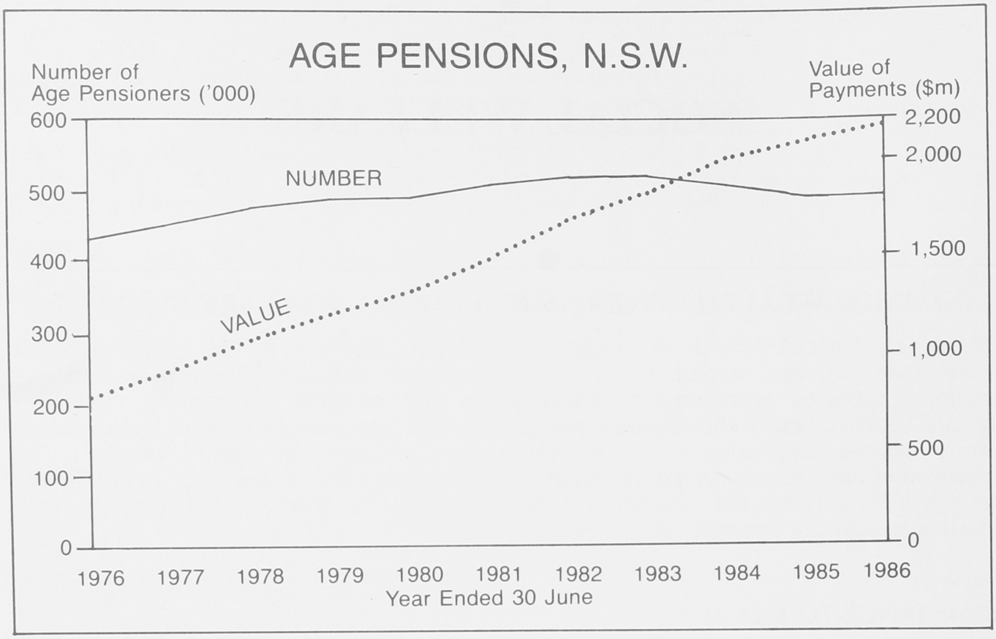
Particulars of age pensions in New South Wales in recent years are given in the following table.

Age Pensions (Including Wives' and Carers' Pensions), N.S.W.

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Age pensioners —						
Males	163,043	164,761	166,661	157,733	151,526	148,948
Females	331,320	335,100	341,302	336,439	331,974	331,559
Total age pensioners	*494,363*	*499,861*	*507,963*	*494,172*	*483,500*	*480,507*
Wife and carer *(a)* pensioners	9,471	8,991	8,760	8,621	8,182	8,449
Total pensioners	**503,834**	**508,852**	**516,723**	**502,793**	**491,682**	**488,956**
Dependent children and students	*(b)*3,155	3,085	3,153	3,254	3,170	3,056
Amount paid during year ended 30 June *(c)* ($'000)	1,469,042	1,674,481	1,808,977	1,970,534	2,084,611	2,175,302

(a) For information on carer pensions, see later text. *(b)* Children aged under 16 years and dependent full-time students aged 16 to 24 years. *(c)* Includes payments to recipients in the Australian Capital Territory.

Manuscript of this chapter prepared in April 1987.



AGE PENSIONS, N.S.W.

ASSISTANCE TO VETERANS AND THEIR DEPENDANTS

Veterans' Disability Pensions

Disability pensions are provided by the Commonwealth Government, in terms of the *Veterans' Entitlements Act 1986* and associated legislation. Disability pensions are payable to male and female veterans who are wholly or partly incapacitated as a result of service in the Australian defence forces. Disability pensions are also payable to dependants of veterans whose death has been accepted as service-related. (During June and July 1986, dependants of incapacitated veterans were offered a once-only lump sum payment to forego future disability pension rights after 6 November 1986).

Disability pensions are not subject to income or assets tests or to income tax.

Disability pensions and war widows' pensions are adjusted in the same way as the age pension.

Particulars of veterans' disability pensions in New South Wales and the Australian Capital Territory in recent years are given in the following table.

Veterans' Disability and Dependants' Pensions, N.S.W. *(a)*

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Disability pensions payable to —						
Incapacitated veterans	63,268	61,839	60,841	59,782	59,276	60,022
Dependants of —						
Incapacitated veterans *(b)*	69,662	66,732	65,153	63,689	62,019	58,941
Deceased veterans	19,301	19,370	20,228	20,986	22,900	24,788
Total disability pensions	**152,231**	**147,941**	**146,222**	**144,457**	**144,195**	**143,751**
Amount paid during year ended 30 June ($'000) *(c)*	190,226	195,613	249,540	279,191	322,360	352,448

(a) Includes the Australian Capital Territory. *(b)* New pensions are no longer granted in this category. *(c)* Excludes recoverable payments to ex-soldiers of other countries.

Service Pensions

Service pensions (as distinct from disability pensions) for certain classes of veterans (male and female) are the broad equivalent of the age pension, and are subject to income and assets tests, but are not conditional upon disabilities arising from service. The disability pension is disregarded when applying the income test for a service pension.

Persons eligible to receive a service pension are men aged 60 years or more and women aged 55 years or more who have qualifying service in the Australian forces or a recognised Commonwealth or allied force. Veterans who are permanently unemployable may also be eligible.

Rates of pension (including wife's pension), additional payments and other benefits are the same as for the age pension.

Service pensions are generally subject to income tax.

Particulars of service pensions in New South Wales and the Australian Capital Territory in recent years are given in the following table.

Service Pensions, N.S.W. *(a)*

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Service pensions payable to —						
Veterans	54,059	58,901	67,208	73,674	76,670	78,440
Wives and widows of veterans	35,844	40,149	47,064	52,811	55,507	57,011
Total service pensions	**89,903**	**99,050**	**114,272**	**126,485**	**132,177**	**135,451**
Amount paid during year ended 30 June ($'000)	229,799	270,080	357,650	441,197	503,640	550,050

(a) Includes the Australian Capital Territory.

ASSISTANCE TO THE HANDICAPPED

Invalid Pensions and Allowances

Invalid pensions are payable to persons not less than 16 years of age who are assessed as being at least 85 per cent permanently incapacitated for work, or permanently blind. As well as medical impairment, factors such as age, education and skills can be taken into account in determining eligibility for invalid pensions. Pensions are subject to income and assets tests, except in the case of people who are permanently blind. Rates of pension (including wife's pension) are the same as for the age pension, and invalid pensioners are entitled to the same additional payments and fringe benefits as age pensioners. Pensioners in an activity centre or adult training centre are eligible for a test-free incentive allowance instead of rent assistance.

Invalid pensions are not taxable unless the recipient has reached 65 years of age (men) or 60 years of age (women). Additional pension and allowances and rent assistance are not taxable.

Particulars of invalid pensions in New South Wales in recent years are given in the following table.

Invalid Pensions (Including Wives' and Carers' Pensions), N.S.W.

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Invalid pensioners —						
Males	57,201	53,729	52,919	58,300	63,559	68,089
Females	25,646	23,979	22,816	23,555	24,504	25,168
Total invalid pensioners	*82,847*	*77,708*	*75,735*	*81,855*	*88,063*	*93,257*
Wife *(a)* and carer pensioners	20,721	18,816	18,530	21,309	24,439	27,238
Total pensioners	**103,568**	**96,524**	**94,265**	**103,164**	**112,502**	**120,495**
Dependent children and students *(b)*	23,963	21,895	20,303	21,950	23,081	24,956
Amount paid during year ended 30 June *(c)* ($'000)	334,460	356,355	377,978	420,424	483,429	554,969

(a) See the section "Age Pensions", earlier in this chapter. *(b)* Children aged under 16 years and dependent full-time students aged 16 to 24 years. *(c)* Includes payments to recipients in the Australian Capital Territory.

Carer's Pension

A carer's pension may be paid to a person caring for a near relative who is severely handicapped and requires "constant care and attention" at home. The relative must be receiving an age or invalid pension or rehabilitation allowance but the claimant must not be receiving a social security or service pension in his/her own right. The pension is paid at the same rate as the age pension.

Sheltered Employment Allowance

This allowance is payable to a disabled person who is employed in a sheltered workshop. Usually the person would be receiving an invalid pension if not provided with sheltered employment. The allowance is subject to income and assets tests. Rates of allowance (including wife's pension) are generally the same as for the age pension.

At 30 June 1986, there were 3,959 recipients of sheltered employment allowances in New South Wales. In 1985-86, expenditure on sheltered employment allowances in New South Wales and the Australian Capital Territory amounted to $23m.

Handicapped Children's Allowances

This allowance is paid to the parents or guardians of a severely handicapped child under the age of 16 years, or aged 16 years and under 25 years if a full-time student not receiving an invalid pension, who is living in the family home and needs care and attention. There is no income test for this allowance. A handicapped child's allowance is not subject to income tax. At 30 June 1986, 9,764 allowances were being paid for 10,208 handicapped children in New South Wales. In 1985-86, expenditure on handicapped children's allowances in New South Wales and the Australian Capital Territory amounted to $10.9m.

Mobility Allowance

This allowance provides assistance for disabled people who are employed or undertaking vocational training and who are unable to use public transport without substantial assistance. The allowance is $11 per week.

ASSISTANCE TO WIDOWS AND SOLE PARENTS

Widows' Pensions and Allowances

A widow's pension is payable to:

- *(a)* a (de jure) widow;
- *(b)* a woman who is a divorcee;
- *(c)* a woman who has been deserted by her husband for a period of not less than 6 months;
- *(d)* a woman whose husband has been convicted of an offence and has been imprisoned for a period of not less than 6 months; and
- *(e)* a woman who was the de facto wife of a man for at least 3 years immediately before his death.

There are 3 classes of widow pensioners —

Class A. A woman with at least one dependent child.

Class B. A woman who has no dependent children and is 50 years of age or more, or who, after reaching 45 years of age, ceased to receive a Class A pension because she no longer had any dependent children.

Class C. A woman who is less than 50 years of age, has no dependent children, and is in need of financial assistance within the 26 weeks following her husband's or de facto husband's death.

The pension is subject to income and assets tests. Rates of pension are the same as for the (single) age pension.

Widows' pensions are subject to income tax.

Particulars of widows' pensions in New South Wales in recent years are given in the following table.

Widows' Pensions, N.S.W.

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Numbers of pensioners —						
Class A	34,242	31,826	30,749	28,776	26,862	24,814
Class B	27,932	28,486	29,227	29,910	30,220	30,351
Class C	38	51	48	45	39	38
Total widow pensioners	*62,212*	*60,363*	*60,024*	*58,731*	*57,121*	*55,203*
Dependent children and students *(a)*	65,528	60,006	56,816	52,173	47,889	43,686
Amount paid during year ended 30 June (b) ($'000)	251,468	273,975	285,482	306,967	323,397	330,979

(a) Children aged under 16 years and dependent full-time students aged 16 to 24 years. *(b)* Includes payments to recipients in the Australian Capital Territory.

Supporting Parents' Benefits and Allowances

A supporting parent's benefit is payable, subject to income and assets tests, to a parent who has the custody, care and control of one or more dependent children. Persons eligible for supporting parents' benefits include separated husbands or wives, unmarried mothers or fathers, separated de facto husbands or wives, widowers, male divorcees, persons whose spouses have been imprisoned or held in custody pending trial or sentence for not less than 14 days, and other sole parents not paid a widow's pension.

The benefit is payable at the same rates and subject to the same income and assets tests as the (single) age pension.

Supporting parent's benefit is subject to income tax.

Recipients of supporting parents' benefits may be eligible for a range of fringe benefits and other concessions, which are described later in the section "Fringe Benefits and Concessions".

Particulars of supporting parents' benefits in New South Wales in recent years are given in the following table.

Supporting Parents' Benefits, N.S.W.

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Number of supporting parents —						
Females	36,010	43,214	49,512	54,455	59,835	62,444
Males	1,724	1,983	2,703	3,126	3,451	3,567
Total supporting parents	**37,734**	**45,197**	**52,215**	**57,581**	**63,286**	**66,011**
Dependent children and students *(a)* of —						
Supporting mothers	59,783	73,119	84,435	93,273	103,386	108,594
Supporting fathers	3,332	3,750	4,802	5,392	5,776	5,950
Total dependent children and students	**63,115**	**76,869**	**89,237**	**98,665**	**109,162**	**114,544**
Amount paid during year ended 30 June *(b)* ($'000)	151,810	228,229	284,165	345,029	414,908	477,848

(a) Children aged under 16 years and dependent full-time students aged 16 to 24 years. *(b)* Includes payments to recipients in the Australian Capital Territory.

ASSISTANCE TO FAMILIES

Family Allowances

A family allowance is payable to a person who is resident in Australia and has the custody, care and control of one or more children under 16 years of age, or has one or more dependent full-time students aged 16 or 17. (Payments for dependent full-time students aged 18 to 24 are only made in special circumstances.) Allowances are not payable in respect of students receiving assistance under the Commonwealth Government education assistance scheme (AUSTUDY) and some scholarship schemes, or students receiving a pension or benefit in their own right. Where the children are resident in an approved institution, the allowance is paid to the institution. From 1 January 1987, the allowance is subject to an income test for students 16 years of age or more.

Rates of family allowance are $22.80 per month for the first (or only) child, $32.55 per month for the second child, $39.00 per month (each) for the third and fourth child, and $45.55 per month for each subsequent child. For each child in an approved institution the rate of allowance is $39.00 per month. An additional allowance is payable for multiple births, viz $150 per month for triplets and $200 per month for quadruplets while the children are under 6 years of age.

Family allowances are not subject to income tax.

Particulars of family allowances in New South Wales in recent years are given in the following table.

Family Allowances, N.S.W.

	At 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Children and students *(a)* in —						
Family units	1,438,181	1,442,215	1,456,403	1,460,444	1,456,489	1,421,774
Approved institutions	3,562	2,238	2,833	4,483	4,622	4,950
Total children and students	**1,441,743**	**1,444,453**	**1,459,236**	**1,464,927**	**1,461,111**	**1,426,724**
Amount paid during year ended 30 June *(b)* ($'000)	341,612	374,985	491,089	537,697	537,598	550,383

(a) Children aged under 16 years and dependent full-time students aged 16-24 years (16-17 years for 1986 except in special cases). *(b)* Includes payments to recipients in the Australian Capital Territory.

Family Income Supplement

A family income supplement of up to $17 per week is payable, subject to an income test, for each eligible child or student. The supplement is not payable where the claimant already receives a Commonwealth pension, benefit or similar payment or an income-tested payment for the child or student. The supplement is not subject to income tax.

Orphan's Pension

An orphan's pension is payable to the guardian of a child whose parents (natural or adoptive) are deceased, or one of whose parents is deceased if the other parent is missing or a long-term inmate at a prison or psychiatric hospital. The pension is also generally payable in respect of a refugee child whose parents are both outside Australia or whose whereabouts are unknown. Children under 16 years of age or full-time students aged 16 to 24 years are eligible under most circumstances.

The pension is $60 per month for each eligible child. The pension is free of an income test and is not subject to income tax. In general, the conditions for payment are the same as those for family allowances. An institution that has been approved for family allowance purposes is also eligible to receive an orphan's pension for any qualified child in its care. At 30 June 1986, pensions were being paid for 2,061 orphans in New South Wales. In 1985-86, expenditure on orphans' pensions in N.S.W. and the A.C.T. amounted to $1.5m.

ASSISTANCE TO THE UNEMPLOYED AND SICK

Unemployment, Sickness and Special Benefits

Unemployment and sickness benefits are limited to men aged 16 to 64 years and women aged 16 to 59 years, who have resided in Australia for twelve months immediately prior to the date of claim or intend to remain permanently in Australia. Persons receiving an age, invalid, wife's, widow's, or service pension or a supporting parent's benefit are not eligible for unemployment, sickness or special benefits.

Unemployment benefit is payable to persons who are unemployed, provided that their unemployment is not due to industrial action by them or members of a trade union to which they belong, who are able and willing to work, and who have registered for employment with the Commonwealth Employment Service. Requirements for sickness benefit are temporary incapacity for work by reason of sickness or accident and the loss thereby of wages or other income.

A special benefit may be granted, under certain circumstances, to persons who are unable to earn a living and are not eligible for some other pension or benefit. Rates of benefit are generally the same as the unemployment benefit.

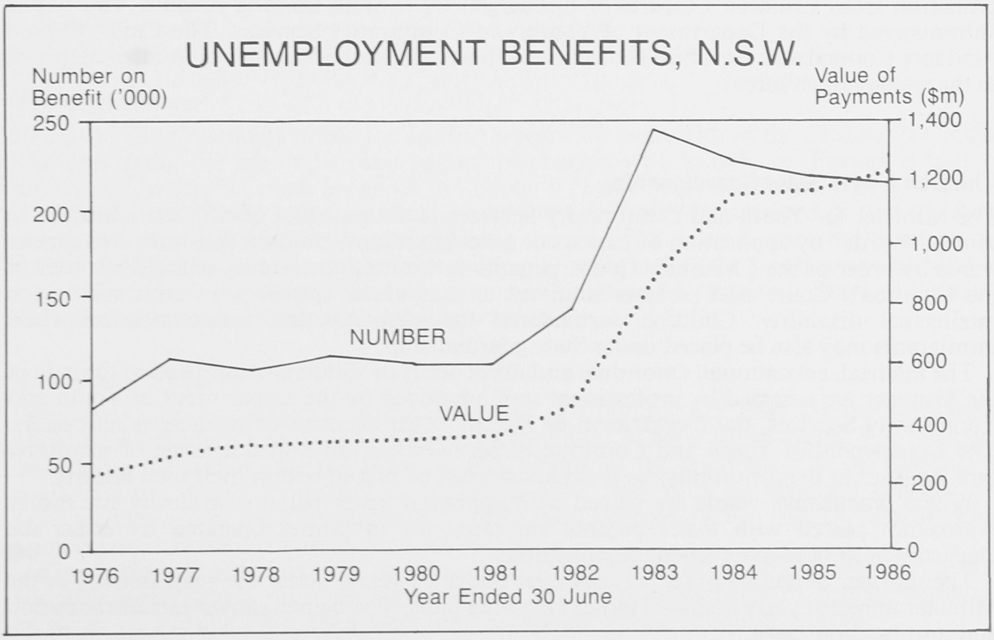
Unemployment, sickness and special benefits (but not rent assistance, additional benefit or allowance) are assessable income for income tax purposes.

Particulars of unemployment, sickness and special benefits in New South Wales in recent years are given in the next table.

Unemployment, Sickness, and Special Benefits, N.S.W.

Particulars	*Year ended 30 June* *1981*	*1982*	*1983*	*1984*	*1985*	*1986*
			Number receiving benefit at end of year			
Unemployment benefit —						
Males	n.a.	101,480	187,181	169,329	162,424	158,185
Females	n.a.	40,618	57,028	55,556	55,278	56,368
Persons	*(a)105,600*	*142,098*	*244,209*	*224,885*	*217,702*	*214,553*
Sickness benefit —						
Males	n.a.	18,383	22,582	20,994	20,130	20,962
Females	n.a.	5,805	6,600	6,828	7,117	7,560
Persons	*(a)21,100*	*24,188*	*29,182*	*27,822*	*27,247*	*28,522*
Special benefit *(b)* —						
Males	n.a.	n.a.	3,489	2,966	3,342	3,440
Females	n.a.	n.a.	4,494	4,092	4,400	4,232
Persons	*(a)6,900*	*7,114*	*7,983*	*7,058*	*7,742*	*7,672*
Total benefits —						
Males	n.a.	n.a.	213,252	193,289	185,896	182,587
Females	n.a.	n.a.	68,122	66,476	66,795	68,160
Persons	*(a)133,600*	*173,400*	*281,374*	*259,765*	*252,691*	*250,747*
			Amount paid during year ($'000) *(c)*			
Unemployment benefit	357,308	449,871	881,183	1,158,650	1,177,280	1,236,437
Sickness benefit	78,937	99,744	120,550	154,879	168,238	176,016
Special benefit	25,811	30,885	34,988	36,387	40,883	45,500
Total benefits	**462,056**	**580,500**	**1,036,721**	**1,349,915**	**1,386,401**	**1,457,953**

(a) Estimated. *(b)* Excludes special benefits to migrants in accommodation centres up to 30 June 1981. Includes such benefits thereafter. *(c)* Includes payments to recipients in the Australian Capital Territory.



UNEMPLOYMENT BENEFITS, N.S.W.

SOCIAL WELFARE SERVICES

N.S.W. DEPARTMENT OF YOUTH AND COMMUNITY SERVICES

The New South Wales Government provides a wide range of social welfare services through the Department of Youth and Community Services. The Department provides or co-ordinates services for families, children, youth, the aged, people with a disability and the homeless. It has special responsibilities in the areas of care and supervision of dependent children and adults, rehabilitation of young offenders, adoption of children, care of immigrant children, child employment, early childhood services, emergency assistance and the support of community groups providing services such as women's refuges and youth crisis centres. Regionalisation of the Department's services has been achieved through the establishment of 10 regional offices administering 91 community welfare centres (34 in the Sydney metropolitan area and 57 in country areas).

CHILD WELFARE

The Child Welfare Act 1939 provides for the care and maintenance of children under State guardianship, the supervision of children in private foster homes, charitable homes and child care centres, the protection of children from ill-treatment and neglect, the maintenance of juvenile offenders in State training schools, and the supervision of those released on probation from Children's Courts or discharged from State training schools. The Act is administered by the Department of Youth and Community Services. The Child Welfare Advisory Council and the Child Protection Council advise the Minister on matters relevant to the welfare of children.

Children Under State Guardianship

The Minister for Youth and Community Services is the guardian of children admitted to care as "wards" by application of parents or other guardians, children committed to care as wards by order of the Children's Court, persons committed to training schools by order of the Children's Court, and persons admitted to care under special provisions relating to intellectual disability. Children surrendered for adoption and unaccompanied child immigrants may also be placed under State guardianship.

The medical, educational, emotional and other needs of children committed to the care of the Minister are assessed by professional staff employed by the Department of Youth and Community Services, the Department of Health, other agencies or medical practitioners. The Department of Youth and Community Services has developed a range of substitute care facilities in the community so that children can be placed within their own locality.

Where practicable, wards are placed with approved foster parents in family situations. Wards not placed with foster parents are cared for in homes operated by either the Department or non-government organisations.

The number of children (i.e. persons aged under 18 years) under the guardianship of the Minister in recent years is shown in the following table. The figures shown exclude adoption and immigration cases.

Children Under State Guardianship, N.S.W.

	At 30 June				
Type of placement	*1982*	*1983*	*1984*	*1985*	*1986*
With parent or other relative —					
Males	218	133	174	160	143
Females	144	100	120	114	121
Persons	*362*	*233*	*294*	*274*	*264*
In foster care —					
Males	1,150	1,070	1,207	998	994
Females	919	905	927	881	907
Persons	*2,069*	*1,975*	*2,134*	*1,879*	*1,901*
In residential child care establishments *(a)* —					
Males	881	462	332	425	275
Females	342	243	225	245	175
Persons	*1,223*	*705*	*557*	*670*	*450*
Living independently —					
Males	66	54	66	28	61
Females	65	53	50	46	54
Persons	*131*	*107*	*116*	*74*	*115*
Other *(b)* —					
Males	150	138	31	22	31
Females	91	105	24	17	34
Persons	*241*	*243*	*55*	*39*	*65*
Total, all placements —					
Males	2,465	1,857	1,810	1,633	1,504
Females	1,561	1,406	1,346	1,303	1,291
Total children under State guardianship	**4,026**	**3,263**	**3,156**	**2,936**	**2,795**

(a) Includes training schools, remand homes, receiving homes, family group homes, charitable homes and homes for intellectually handicapped children. *(b)* Includes hospitals, boarding schools and children in the care of adults other than parents or relatives.

Other Substitute Care for Children

Children may be placed by their parents or guardians in licensed private foster homes or charitable homes conducted by religious bodies and other organisations, in preference to being boarded out as wards.

Any place used for the reception and care of one or more children under 16 years of age apart from their parents (or other blood relatives) should be licensed by the Department of Youth and Community Services.

Young Offenders

Cases of young offenders under the age of 18 years are dealt with in the Children's Courts. Children under the age of 10 years cannot be charged with an offence. Further details in respect of Children's Courts are given in Chapter 9 "Law, Order and Public Safety".

Children committed to training schools by the Court may be detained in custody for a maximum period of 3 years, or until reaching the age of 18 years. Committal to a training school is a final resort and many of the children brought before the courts are released after admonition or on probation. The Department of Youth and Community Services exercises control of children committed to training schools.

Adoption of Children

Legal provision is contained in the Adoption of Children Act 1965 for the permanent adoption of children upon order of the Supreme Court of New South Wales. The principle underlying the Act is that the interests and welfare of the child shall be the paramount consideration. Applications for an adoption order may only be arranged through the Director-General of the Department of Youth and Community Services, private adoption agencies or, in certain circumstances, solicitors.

Charitable organisations desiring to conduct negotiations and make arrangements for the adoption of children must be approved by the Director-General as private adoption agencies. At 30 June 1986, there were three approved private adoption agencies.

The following table shows the number of adoptions in New South Wales in recent years. For statistical purposes, adoptions are recorded when the adoption order is signed. The number of orders signed in a year may be affected by administrative and other special circumstances, as well as by the numbers of children being surrendered for adoption. This should be kept in mind when comparing adoption statistics from year to year.

Adoptions: Adoption Agency and Relationship of Adoptive Parent(s) to Adopted Person, N.S.W.

	Year ended 30 June					
Adoptions	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Adoptions arranged through —						
Dept. of Youth and Community Services —						
Parents	1	4	15	9	1	3
Other relatives	2	5	5	7	1	2
Non-relatives	308	312	416	255	235	303
Total	*311*	*321*	*436*	*271*	*237*	*308*
Private adoption agencies —						
Parents	—	—	—	—	—	—
Other relatives	—	—	—	—	—	—
Non-relatives	139	147	126	88	114	105
Total	*139*	*147*	*126*	*88*	*114*	*105*
Solicitors —						
Parents	342	378	351	282	232	219
Other relatives	2	9	13	11	19	6
Non-relatives	—	—	—	46	20	25
Total	*344*	*387*	*364*	*339*	*271*	*250*
Total adoptions —						
Parents	343	382	366	291	233	222
Other relatives	4	14	18	18	20	8
Non-relatives	447	459	542	389	369	433
Total adoptions	**794**	**855**	**926**	**698**	**622**	**663**

Children's Services

In New South Wales there is a diverse range of services provided for the care and education of young children. These include long day care, occasional care, family day care, vacation care, out-of-school care, and emergency care.

Children's services in New South Wales are predominantly operated by community-based management committees made up of parents and community representatives or alternatively sponsored by local government authorities, church organisations, State-wide organisations or private individuals.

The Department of Youth and Community Services is responsible for licensing children's services. In 1986-87, the Commonwealth government's contribution to children's services will amount to approximately $56m paid directly to community groups and local government authorities.

Youth Services

The Department of Youth and Community Services provides funds to community-based groups that provide a range of services designed to meet the needs of young people. Funds are provided for youth workers who are employed in drop-in centres and youth resource centres. Young people at risk of being taken into care are specifically targeted.

Organisations providing help for young people from non-English speaking backgrounds or young Aboriginals are assisted by the Department's Community Welfare Fund. Subsidies are also available for the employment of local government youth workers.

Total expenditure on youth services in 1985-86 was $5.8m.

EMERGENCY ASSISTANCE

Supported Accommodation Assistance Program

This program is jointly funded by the (State) Department of Youth and Community Services and the (Commonwealth) Department of Community Services and administered by the State Department. It aims to provide assistance and support to people who are temporarily homeless as a result of crisis or who need assistance to move towards independent living. Assistance is in the form of grants to non-government agencies and local government authorities that provide accommodation and related support services to homeless persons.

There are three separate sub-programs:

(a) The Youth Supported Accommodation Program includes crisis refuges, medium term accommodation (3 to 12 months) and longer term accommodation for youth aged 12 to 25 years. The program funds 100 youth services.

(b) The Women's Emergency Services Program provides services to women and their children who have been victims of domestic violence and to homeless women. In 1986-87, grants were made to 47 women's refuges and 12 other women's services.

(c) The General Supported Accommodation Program includes assistance to proclaimed places which provide short-term shelter for people who are publicly intoxicated or homeless. There are 32 such proclaimed places in New South Wales. Funding is also provided to medium term accommodation schemes, family emergency refuges, and information and referral services. There are 47 services in this program.

In 1986-87, the State and Commonwealth governments will provide $26m for the Supported Accommodation Assistance Program in New South Wales.

In addition, the Commonwealth government has introduced the Crisis Accommodation Program to provide capital funding for accommodation services in conjunction with the Supported Accommodation Assistance Program with $4.9m being made available to New South Wales in 1986-87. The Program is administered by the (State) Housing Department.

Child Welfare Assistance Program

The Department of Youth and Community Services provides a program of child-focused financial assistance to families whose children may be at risk of abuse or neglect, or may otherwise by taken into care. Children under 18 years of age, living independently, but ineligible for other income support, can also be considered for assistance.

Child Protection

The Department of Youth and Community Services has a responsibility to investigate notifications of abuse or neglect of children and to coordinate services to children in need of protection. Field services are provided by district officers and child protection workers from community welfare centres. The child protection and family crisis service provides a 24 hour telephone and crisis call-out service.

Emergency Relief

Through the emergency relief program the Commonwealth government provides grants to community welfare organisations for people in financial crisis. Cash is provided for essential goods and services such as food, electricity, rent arrears and transport.

The State government's Lifeline Allowance is designed to provide assistance to the disadvantaged in meeting their electricity and gas bills. This allowance has an expected annual cost of $2.5m.

Supplementary Assistance

The State Department of Youth and Community Services provides bond and relocation assistance for persons in need, and free spectacles and transport concessions to eligible needy persons.

HOME AND COMMUNITY CARE SERVICES

Aged Services Program

Under this program, the Department of Youth and Community Services provides financial assistance to community organisations which help develop social support networks among the aged, promote community participation by the aged and provide home support for the elderly.

Home and Community Care Program

The Home and Community Care Program provides community services for the frail elderly and other people with disabilities who are living at home, thus preventing premature or inappropriate institutionalisation. The Program is cost shared by the Commonwealth and State Governments and administered by the Department of Youth and Community Services.

Services provided include respite care, home maintenance and modification, community transport, home help (such as grants to "Home Care Service of N.S.W."), paramedical services, community nursing, food services (such as "Meals on Wheels"), education, training and information.

Expenditure on the program in 1985-86 exceeded $60m and is estimated to be about $87m in 1986-87.

Home Care Service of New South Wales

The Home Care Service of New South Wales is a community organisation incorporated under the Community Welfare Act 1982. It reports directly to the Minister for Youth and Community Services.

The Service, which has over 160 branches throughout New South Wales, aims to assist the family and the individual to live as independently as possible in the home, by providing assistance in times of illness, incapacity, crisis and stress; and to provide appropriate care at home so that people may avoid moving to an institution. Services available include help with basic household duties, personal and relief care, a live-in housekeeper service, handyman and yard maintenance services. Fees charged depend upon the ability of the client to pay. No one is refused service due to inability to pay.

The Home Care Service is subsidised by the Commonwealth and State Governments under the terms of the *Home and Community Care Agreement*. During 1985-86, approximately 34,000 clients were being serviced at any one time and, at 30 June 1986, approximately 6,200 field and administrative staff were employed by the Service, mostly on a part-time basis.

WELFARE HOUSING

Hostels and Nursing Homes

Under the *Aged or Disabled Persons Act 1954*, the Commonwealth subsidises non-profit making charities, religious or benevolent organisations or local government bodies who provide hostel, nursing home, or residential facilities for aged Aboriginals, ethnic groups and financially disadvantaged people. Total capital expenditure in N.S.W. in 1986-87 will be approximately $12m.

Hostel operators may be eligible for a hostel care/personal care subsidy for each aged or disabled person provided with hostel accommodation and personal care services. In 1985-86, expenditure on this subsidy in New South Wales totalled $20m.

Further particulars of Commonwealth Government housing assistance are given in Chapter 12, "Housing and Construction".

State Housing Assistance

The Department of Housing provides public rental housing and also funds community-based housing organisations. Allocations are made from the waiting list with priority housing being available for people in genuine crisis. The Department also recognises the special needs of particular groups and makes special provision for the aged, singles, people with disabilities and Aboriginals.

ABORIGINAL WELFARE

The (Commonwealth) Department of Aboriginal Affairs is responsible for planning and coordinating programs for Aboriginals. The Department consults extensively with Aboriginal organisations and communities and other relevant government departments. Specific programs have been developed to help overcome existing disadvantages of Aboriginals, to increase control by Aboriginals of their own affairs, and to raise the living standard of Aboriginals to that of the Australian community at large.

The (State) Ministry of Aboriginal Affairs liaises with other government departments on policies and provision of services for Aboriginals, identifies needs and problems, and acts as the representative of Aboriginals in taking up these matters with Commonwealth and State authorities.

Details of assistance to Aboriginals in the fields of education and health are shown in the relevant sections of the Year Book.

SERVICES FOR HANDICAPPED PERSONS

Rehabilitation Services

The Commonwealth Department of Community Services provides a range of rehabilitation services for people with disabilities. These services assist clients to get a job through helping them improve their physical functioning, communication or independence and assist clients to live more independently in the community.

Services are currently available through two major centres, seven regional units and four other centres. The major centres are to close in 1987 and it is anticipated that 27 regional units and two vocational service centres will be in place in N.S.W. by the end of 1988.

Disability Services Program

Under the *Handicapped Persons Assistance Act 1974*, financial assistance is provided by the Commonwealth Department of Community Services to community-based organisations which meet the special needs of people with disabilities in such areas as employment, vocational and other training, accommodation, recreation, advocacy and information and staff training. It is anticipated that this act will be repealed in 1987 and replaced by other legislation.

Attendant Care Scheme

The scheme, due to commence in April 1987, will provide private accommodation for approximately 100 severely disabled people of working age who currently reside in nursing homes in New South Wales.

State Government Services

The Department of Youth and Community Services provides a range of services to people with disabilities. Services include accommodation, counselling, respite care, development of personal and social skills and community support. The Department also funds organisations and community groups which provide services for people with disabilities and their families.

OTHER SOCIAL WELFARE SERVICES AND CONCESSIONS

Fringe Benefits and Concessions

Pensioners and recipients of certain other Commonwealth benefits and allowances are, subject to a special income test, issued with a Pensioner Health Benefits card which entitles the holder to various fringe benefits and concessions.

Commonwealth fringe benefits and concessions include special health benefits (described in Chapter 6, "Health"), a range of pharmaceuticals free of charge, free hearing aids and optometrical consultations, telephone rental and postal concessions, funeral benefits and reduced travel fares.

The New South Wales Government provides subsidies and concessions towards certain services utilised by persons holding Pensioner Health Benefits cards. Reduced fares are paid on New South Wales Government trains, buses, and ferries, and privately-operated bus services. Other fringe benefits include rebates on both council rates and water and sewerage rates, rebates on electricity accounts and dog licences, free motor vehicle drivers' licences and car registration, together with reduced third party insurance costs.

Certain commercial organisations also provide fringe benefits (mostly in the form of a reduced fee) to persons holding Pensioner Health Benefits cards.

At 30 June 1986, there was a total of 635,156 persons with Pensioner Health Benefits cards in New South Wales. This comprised 410,993 age and wife/carer pensioners, 107,824 invalid and wife/carer pensioners, 3,884 recipients of sheltered employment allowances (including wife pensioners), 49,781 widow pensioners, 61,496 supporting parent beneficiaries and 1,178 recipients of rehabilitation allowances (including wife/carer pensioners).

A limited range of fringe benefits and concessions is also available, free of an income test, to sickness beneficiaries (issued with a Health Benefits card) and unemployment and special beneficiaries (issued with a Health Care card).

Other low income earners may also be issued with a Health Care card, with consequent entitlements to fringe benefits, subject to an income test.

Funeral Benefits

A funeral benefit of up to $40 is payable by the Commonwealth Government to an eligible pensioner who is responsible for the cost of the funeral of another such pensioner or of a spouse or dependent child. A benefit of up to $20 is payable to any other person who is responsible for the cost of the funeral of an eligible pensioner. In 1985-86, there were 16,631 benefit claims granted in New South Wales, and the amount paid on benefits in New South Wales and the Australian Capital Territory was $532,000.

Legal Aid

The Australian Legal Aid Office and the Legal Services Commission of New South Wales provide legal aid and advice to needy persons in relation to matters arising under Commonwealth and State law respectively.

Further details of legal aid services are given in Chapter 9 "Law, Order, and Public Safety".

Co-ordination of Welfare Services During Disasters

The Department of Youth and Community Services administers schemes that provide emergency relief and financial assistance to the victims of floods, bushfires and other emergencies. In addition to these schemes, the N.S.W. Disaster Welfare Plan has been developed to ensure the co-ordination of welfare services provided by statutory and non-statutory organisations in the event of a major disaster. Under the Plan, co-ordinating committees have been established in approximately 40 localities in New South Wales.

GOVERNMENT OUTLAYS ON SOCIAL WELFARE

COMMONWEALTH GOVERNMENT OUTLAYS

The next table shows selected outlays by the Commonwealth Government on social security and welfare in New South Wales in recent years. The figures cover Commonwealth Government outlays in the form of:

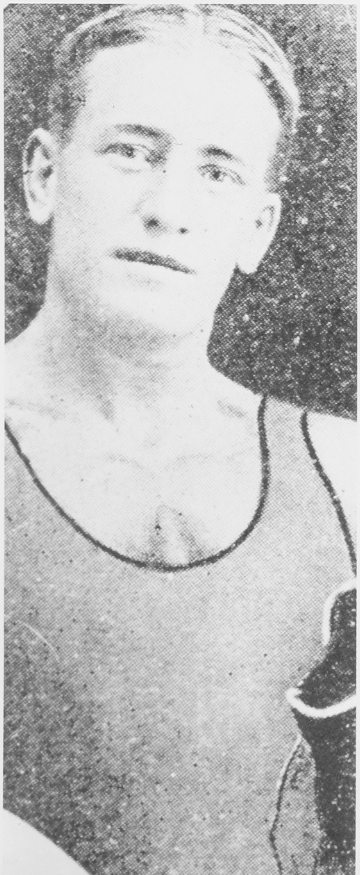
(a) grants to the New South Wales Government for current purposes; and
(b) personal benefit payments to residents of New South Wales and the Australian Capital Territory

that have been classified to the purpose of "social security and welfare" in the Australian National Accounts. The figures do not represent the total outlays by the Commonwealth Government on social security and welfare in New South Wales; they exclude, for example, grants for private capital and current purposes, direct grants to local government authorities, and expenditure on the administration of social security programs in New South Wales.

Left: Victor Trumper, an international cricketer and one of Australia's great early sportsmen. Born in Sydney, Trumper is remembered for his outstanding skill as a batsman between 1899 and 1911. A last-minute selection for the 1899 Australian team, he scored 135 runs not out against England and 300 not out against Sussex. Perhaps his most remarkable season was with the Australian team in England in 1902. One of the wettest summers on record, he scored 2,570 runs in 53 innings, this tour score only exceeded later by Bradman. He died aged 37 of Bright's Disease.

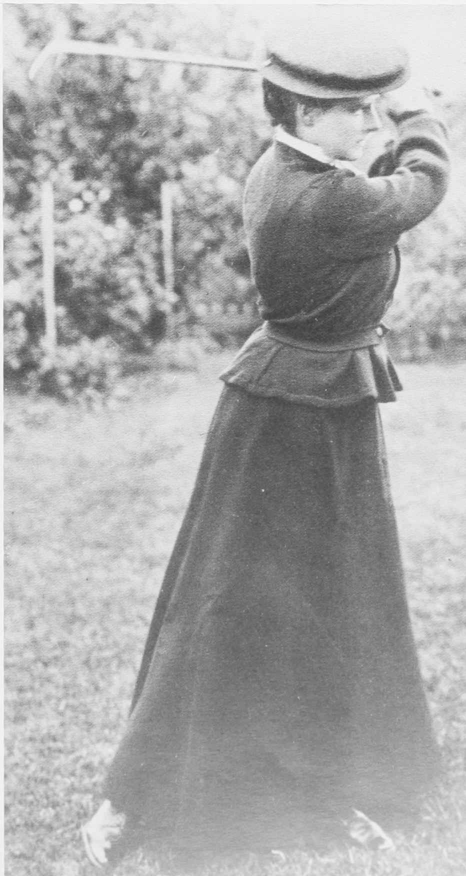
Sydney Morning Herald

Below right: Leonora Wray, an early Australian sportswoman and one of the State's outstanding women golfers. Leonora won three Australian Women's Amateur Golf Championships in 1907, 1908 and 1929, and captained Australia's first team to tour Great Britain in 1950. With others, she was instrumental in founding the Australian Ladies Golf Union in 1921 for which she served as President. She was awarded the M.B.E. in 1968 for her long and dedicated service to the game. Her dress, as shown in the photograph, indicates the difficulty for women playing sport, hampered for many years by conventional restrictions on suitable attire. Introduced into Australia in 1847, golf did not gain widespread popularity until the twentieth century. After the formation of the Sydney Golf Club in 1893, clubs began to spring up rapidly throughout N.S.W. By 1948, golf had become so popular that the N.S.W. Golf Association was formed to take over full control of the game. Today, golf is very popular with many people of all ages, both socially and competitively.



Left: Another of our early sportsmen, Reginald "Snowy" Baker is remembered as Australia's greatest all-round sportsman. Born in Sydney in 1884, he earned distinction as an amateur in 26 different sports. At the age of 16, he represented Australia against England in Rugby Union, and at 18 he became the middleweight and heavyweight boxing champion of Australasia. At university, he excelled at cricket, football, athletics and rowing, and between 1901 and 1906 he won many individual and team championships in swimming, water polo, diving and rowing. In 1908 he won a silver medal at the London Olympics for middleweight boxing, after which he toured Europe competing in several sports. Also a keen horseman, he competed at horseback wrestling and played in international polo matches. He later became a successful entrepreneur and starred in several Australian films. He died in 1953.

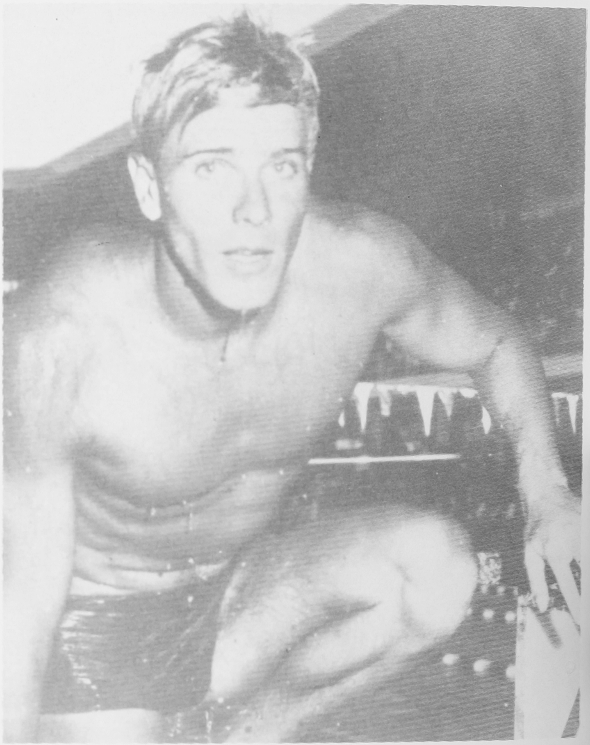
Photographs: State Sports Centre Hall of Champions.



Left: Olympic and Empire Games rowing champion, H.R. (Bobby) Pearce. Bobby won Australia's first Olympic gold medal for rowing in the single sculls at Amsterdam in 1928, an achievement which he repeated at the 1932 Los Angeles Games. Probably the greatest sculler the world has known, he won all major amateur world sculling titles and after turning professional in 1933, held the World Professional Sculling Championships from 1933 to 1948. He retired undefeated as a World Champion, both amateur and professional, after a career extending more than 20 years. He died in 1976. Professional sculling became popular in Sydney during the 1850's with large crowds drawn to the Parramatta River and Sydney Harbour for rowing regattas. Regular Australian amateur sculling championships began in 1895. Although rowing in Australia has become a sport engaged in mainly by schools and colleges, it continues to produce international champions.

State Sports Centre Hall of Champions

Although Australia's first swimming championship occurred in Sydney in 1846, enthusiasm for the sport did not develop until later and the N.S.W. Amateur Swimming Association was not founded until 1892. In 1902, Richmond Cavill first used the Australian "crawl" stroke in championship swimming, adapting a style used in the Solomon Islands. Since then, Australia has produced many world champions and achieved world recognition for her swimmers, particularly impressing the swimming world at the 1956 Melbourne Olympic Games by winning 8 gold medals; including 2 individual and 1 relay gold by Murray Rose (right) and 1 individual and 1 relay gold by Dawn Fraser (below right). At those Games, Rose became the youngest triple gold medallist in Olympic history, aged 17. At the 1960 Olympic Games, he became the first swimmer to win a men's distance title at successive Games with the 400 metres freestyle. He also won a silver and bronze medal in the 1960 Olympics and 4 gold medals at the 1962 Empire Games. (Up to and including 1962, the Commonwealth Games were known as the Empire Games). A vegetarian, he broke 9 world records and is acknowledged as one of the world's greatest freestyle swimmers. Born in Balmain, Dawn Fraser is the only person ever to win the same event at 3 consecutive Olympics, namely the 100 metres freestyle in 1956, 1960 and 1964. During her career, she won 4 gold and 4 silver Olympic medals plus 6 gold and 2 silver medals at the Empire Games of 1958 and 1962. She established her first world record time in 1956 for the 110 yards freestyle, breaking a record which had stood for 20 years and was the first woman to swim 100 metres in under one minute. In all, she broke 27 individual world records and won 23 Australian Championships.



State Sports Centre Hall of Champions.

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The first organisation concerned with amateur athletics in Australia, the Sydney Amateur Athletic Club, was formed in 1872 although amateur running had been popular since earlier in the century. Australasian championships were held from 1893, although organised women's events were not held until 1926. Annual Australian championships have been held since 1947. Australian women, in particular, have been among the world's best athletes.
Above: Betty Cuthbert, Australia's "Golden Girl" of athletics. Born in Sydney, Betty won 4 Olympic gold medals, numerous Commonwealth Games medals and broke several Olympic and world record times. She represented Australia in the 100 and 200 metre sprints and the 100 metre relay at the 1956 Melbourne Olympics. She also competed in the 1960 Rome Olympics and the 1958 and 1962 Empire Games, after which she changed to middle distance running, which led to her selection for the 400 metres at the 1964 Tokyo Olympics.

Left: Amateur cycling champion, Gary Sutton. Originally from Moree, Sutton represented Australia at the 1976 and 1980 Olympic Games and at the 1974 and 1978 Commonwealth Games. By 1981, he had won a record 22 Australian Championships. He achieved world acclaim in 1980 when he won the world amateur 50 km point score championship on a cycle with a buckled wheel and one tyre. Cycle racing in Australia began in the late 1800's with early cycling clubs using the "penny farthing" bicycle. Amateur interstate tours began in 1884 after which championship road and track racing developed rapidly. The Australian amateur championships have been held annually since 1920. These were originally held in 1888, but popularity for amateur racing declined after that for some time. Australian cyclists first entered the Olympic Games in 1920 and have competed ever since.

Sydney Morning Herald

Above: Sir Donald Bradman, recognised in cricketing countries as the greatest batsman the world has seen. Nicknamed "The Don", his Test career spanned 20 years from 1928. Born in Cootamundra, he was educated at Bowral where he scored his first century aged 12. During his career, Bradman batted 80 times in 52 Tests for a record 6,996 runs at an average of 99.94. In first class cricket, he made 117 centuries. His highest score was 452 not out for N.S.W. against Queensland in 1930. He captained Australia against England from 1936-37 to his retirement in 1948 during which time the team did not lose a series. In his last year in Test cricket, he led the team to England and it completed the tour undefeated, the only Australian team to perform this feat. He also played in and captained Test matches against the West Indies, South Africa and India. He was knighted in 1949 and was awarded Companion of the Order of Australia in 1979.

Below: The Sydney Cricket Ground, Moore Park. The S.C.G. officially opened in 1878 when the Sydney Cricket Ground Trust was formed and facilities including the Members Pavilion were built. The ground, which had been used for cricket by the nearby military barracks since the mid 19th century, became Sydney's chief cricket venue. Previously, cricket had been played at Albert Park, Redfern and in Sydney's Hyde Park, this being the venue of Australia's first recorded cricket game in 1803. 1878 was also the first year that an Australian team toured England. Australia won that tour and the "Ashes", the symbol of supremacy in Anglo-Australian cricket, came into being. Today, all first class cricket in Sydney is played at the S.C.G. Major changes in the presentation of cricket have occurred in the past 10 years with the introduction of one-day matches and night cricket (pictured below) together with massive television coverage.

Sydney Morning Herald

Left: Known as the "Little Master", Clive Churchill was one of Rugby League's more inspiring fullbacks and Australia's Test Captain for some years. Originally from Newcastle, he joined the South Sydney Club in 1947, eventually playing for N.S.W. and Australia. At 23, he became one of Australia's youngest captains against England's 1950 touring team. He had four "Kangaroo" tours and played 13 Tests against England.

Sydney Morning Herald

Sydney Morning Herald

Right: Ken Catchpole, one of the all time greats of Australian Rugby Union. After showing great promise at Sydney's Scots College, he joined Randwick Club and first played for N.S.W. in 1959. A half-back with all-round ability, he represented Australia in 27 Tests, 13 of them as Captain, becoming Australia's second youngest when aged only 22. He made 6 overseas tours with "Wallaby" teams.

State Sports Centre Hall of Champions

Left: Known as "Mr. Soccer", John Warren played 46 full international matches and participated in 3 World Cup campaigns with the "Socceroos" in the 1960's and 70's. He played First Division at the age of 15 with Canterbury, but most of his club football was with St. George, where he was captain for 12 seasons. He spent some years as a coach, later concentrating on soccer promotion. In 1973 he became the first soccer personality to be awarded the M.B.E.

Four codes of football are played in Australia: Rugby Union, Rugby League, Soccer and Australian Rules. The first 3 codes are strongly supported in N.S.W. although Australian Rules has gained popularity in the State in recent years. Rugby Union was imported into Australia, the first club being formed by Sydney University in 1864, and is the name given to the amateur game of Rugby. Rugby League developed from Rugby Union early in this century, as a result of out-of-pocket expense payment disputes. The new code made little progress at first but today thousands of Rugby League footballers now compete throughout the State. Australia has competed internationally in both codes since the early 1900's. Soccer was first played in Australia in 1880. An Australian team entered the sphere of international soccer in 1922 and has played in the World Cup since 1965.

Sydney Morning Herald

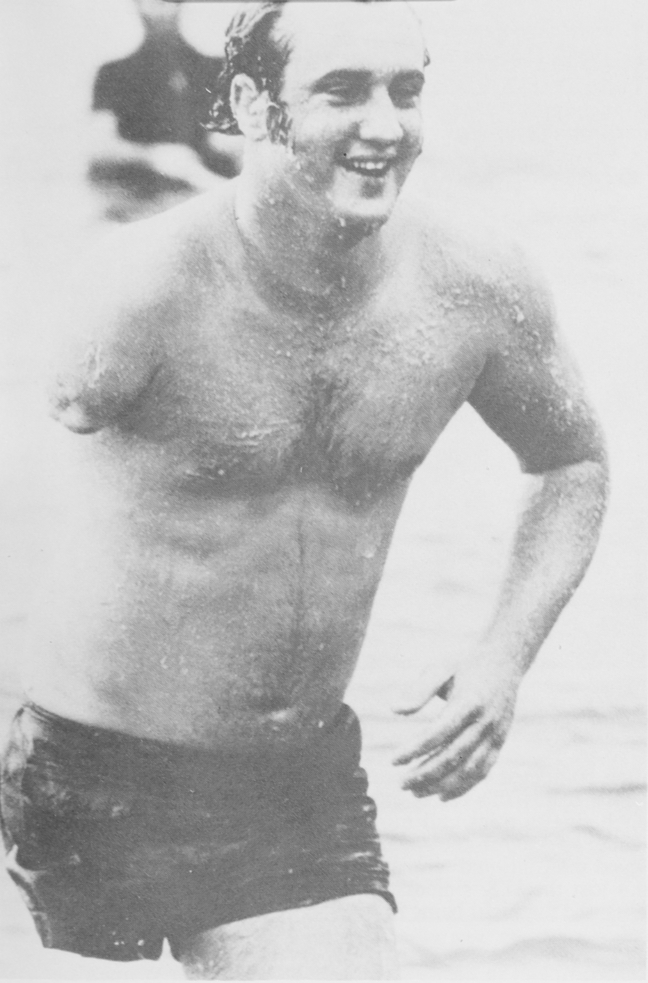
The game of squash or squash rackets did not gain a significant following in Australia until after World War II, but over the years Australia has produced some of the best players in the world. Australian amateur and professional championships are contested annually. Photographed above is Heather McKay of Queanbeyan, N.S.W. who achieved status in the 1970's as the greatest woman squash player in the world. She began playing squash in 1959 in order to maintain her fitness for hockey, her earlier sporting ambition. She won the British Championship (recognised as the unofficial World Title) for 16 consecutive years (1962-1977) and the Australian amateur championship 14 times (1960-1973), after which she turned professional in 1974. She also won the Woman's World Squash Championship, after that tournament was established, in 1976 and again in 1979 and only lost 2 competitive singles matches in her career. More recently, Mrs McKay has also excelled as a Woman's Racketball Champion.

Below: The N.S.W. State Sports Centre at Homebush, Sydney. The Centre, which opened in November 1984, is a multi-purpose venue designed to present a full spectrum of sporting events at international, national and state level. The main arena seats almost 5,000 people and has a playing area which accommodates almost all indoor sports. The competition hall can be divided into sections enabling 3 different matches to be played simultaneously. The Centre also has an olympic standard gymnastics centre, a training centre, a weight-training room, a 120 seat auditorium and a sports medicine clinic. The State Hockey Centre opened in September 1985 and the State Softball Centre in May 1987, as part of the Sports Centre. Both are high class facilities designed to meet international playing standards. The Centre also houses the Hall of Champions, the State's tribute to our sporting greats, which provided information for many of the captions included in this photographic segment. Future plans include the development of the State Aquatic Centre.

State Sports Centre Hall of Champions

State Sports Centre Hall of Champions

Left: Australian jockey, George Moore. Together with trainer T.J.Smith, Moore dominated Sydney racing for many years. From August 1956 to his retirement in October 1971, he had 3,400 rides for 1,040 winners in Australia. Overall in the world, he rode 2,333 winners. He won 10 Sydney premierships and 15 English Derbys and with an English rider was rated the best rider in the world. The official beginning of Australian horse-racing is taken as 15 October 1810 when the first day of a three day meeting took place in Sydney's Hyde Park. It has subsequently gained nationwide popularity and developed into a major industry. Sydney has four permanent racecourses equipped with automatic totalisators, mobile starting gates, photo-finish cameras and grandstands with closed-circuit television and its year-round racing is shared by the Australian Jockey Club (A.J.C.), founded in 1842 and the Sydney Turf Club (S.T.C.), founded in 1943.

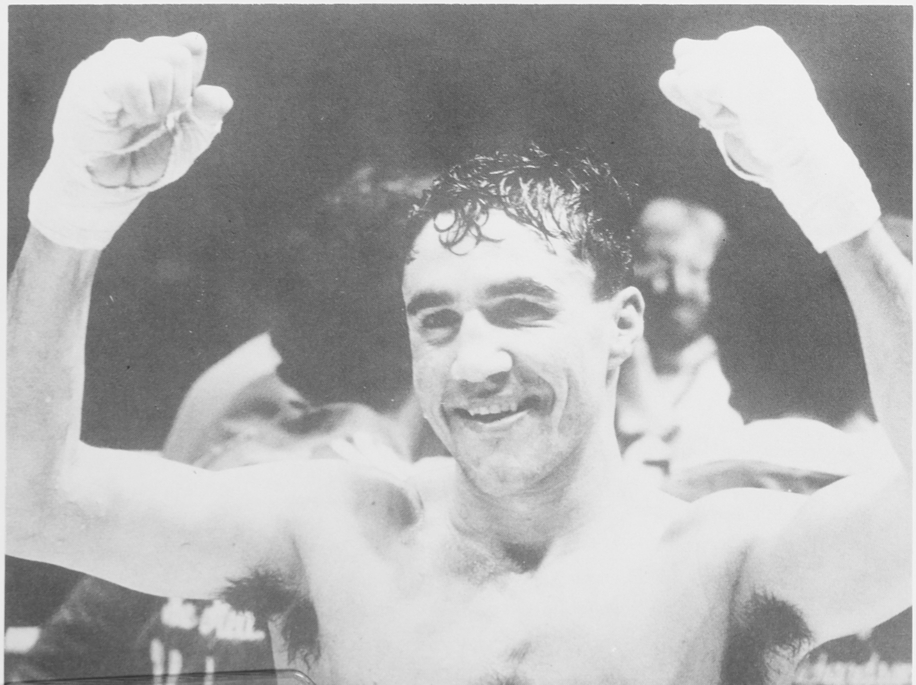


State Sports Centre Hall of Champions

Left: Charles Tapscott, an amputee since the age of 18, from Wollongong, N.S.W. who has excelled in international sporting events for the disabled. Displaying tremendous courage and determination to overcome his disability, Tapscott has won several gold and silver medals for swimming and broken numerous world records. He has also competed successfully in athletics events. Participation in disabled sport has increased largely over the last 10 years. However, lack of recognition by able-bodied people of the barriers facing disabled people is a major problem. The National Committee on Sport and Recreation for the Disabled was established in 1981 to advise the Federal Government on priority areas for development of sport and recreation for disabled people. Several national sporting organisations for specific disabilities also exist. Disabled sportspeople in Australia have been remarkably successful in international competition in all classes of disability, ranking highly particularly in amputee and wheelchair sporting events. Unfortunately, their world record breaking efforts go largely unrecognised.

Below: Jeff Fenech, known as "The Marrickville Mauler", celebrates triumph over Richardson at the Sydney Entertainment Centre in July 1987. Turning professional after competing in the 1984 Los Angeles Olympics, Fenech is the only Australian to win world professional boxing titles in two divisions. In 1985, he won the International Boxing Federation (IBF) World Bantamweight title which he successfully defended twice. He relinquished this title to fight for the World Boxing Council (WBC) World Super-Bantamweight title in May 1987 which he also won. By November 1987, he had successfully defended that title twice and announced his intention to aim for the world featherweight title in 1988. Prize fights have been popular in Australia since early settlement and last century all fights were contested with bare knuckles until this was officially banned in 1884. The first world title fight in Australia was held in Sydney in 1908. Amateur boxing championships have been held annually since the early 1900's and Australian boxers compete in both the Commonwealth and Olympic Games. Many Australian amateur champions have later won Australian professional titles.

Sydney Morning Herald.

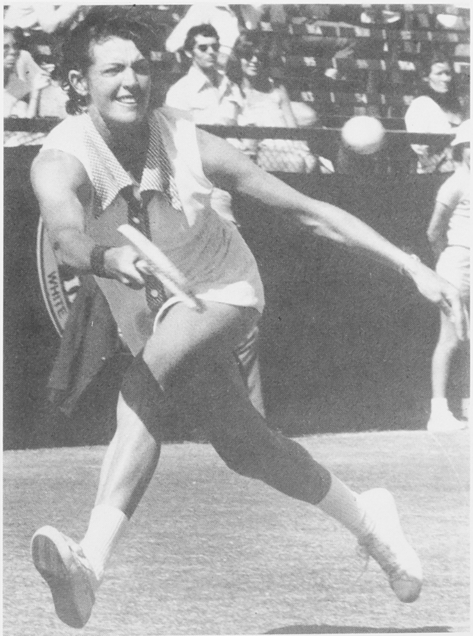


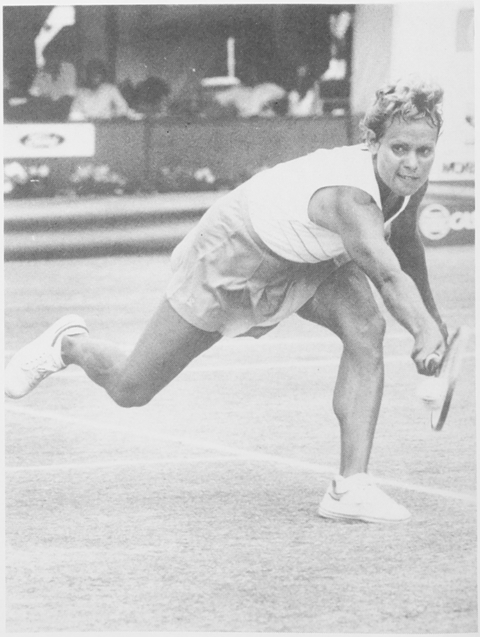
Sydney Morning Herald

Australia has produced many world-class players since tennis was introduced in the 1870's, although in the early days it was played largely by the more wealthy middle class. N.S.W. Championships were held in 1885 and the first Australian Championships were held in 1905. Above are shown Ken Rosewall and Lew Hoad, "the tennis twins" in a doubles match. Both from Sydney, they often competed together as a doubles partnership but also individually achieved great success in singles tournaments. Rosewall's career at the top spanned over 20 years from 1953 — he won 4 Australian, 2 U.S. and 2 French singles titles and numerous Australian, French and Wimbledon doubles titles. In 1974, he set a record by being selected in the Australian Davis Cup team 21 years after first playing in a Challenge Round. Lew Hoad played international tennis from the age of 17. In 1956, he won the Australian, French and Wimbledon singles but lost the U.S. singles to Rosewall, missing out on the Grand Slam. He played in several Davis Cup tournaments, the highlight being in 1953 when he and Rosewall, in their first Challenge Round, defeated America in the final.

Below left: Margaret Court, towards the end of her career, competes in the 1976 Colgate International Women's Tennis Championship at Sydney's White City in Rushcutters Bay. Mrs Court, born in Albury, ranks as Australia's greatest woman tennis player. She became the first Australian woman to win Wimbledon in 1963, and in 1970 became the second woman ever to win the Grand Slam singles. From 1961 to 1973 she won 24 "Big Four" singles titles. In total, she won 90 championships including singles, doubles and mixed doubles titles.

Below right: Evonne Cawley plays her favourite shot, a backhand, to Martina Navratilova in a 1982 women's tennis final at White City. Mrs Cawley, an Aboriginal girl from Barellan in N.S.W., appealed to tennis fans around the world because of her sporting approach to the game. She began touring in 1970 and in her career won 4 Australian, 1 French and 2 Wimbledon singles titles and several doubles and mixed doubles titles.
The photos below were taken by Anton Cermak.





Commonwealth Government Outlays on Social Security and Welfare in New South Wales ($'000)

Particulars	*Year ended 30 June* *1981*	*1982*	*1983*	*1984*	*1985*	*1986*
	Grants to the State for current purposes					
Mortgagee and rent relief	..	..	7,030	6,980	7,658	8,020
Assistance for deserted wives *(a)*	6,379	..	..	..	..	..
Home care services	3,611	4,321	5,725	11,850	15,736	..
Home and community care *(b)*	..	..	..	..	..	21,587
Geriatric assessment *(c)*	..	..	..	..	..	1,305
Child care services	3,257	3,608	4,171	4,032	1,902	1,556
Aboriginal welfare	786	967	r447	41	16	40
Supported accommodation assistance	..	..	..	..	6,287	10,723
Other welfare services	516	r1,435	r762	2,787	2,505	1,421
Total, grants for current purposes	**14,549**	**r10,331**	**r18,135**	**25,690**	**34,104**	**44,652**
	Grants to the State for capital purposes					
Home and community Care *(b)*	..	..	..	..	..	1,185
Senior citizens' centres *(b)*	1,791	1,379	2,711	779	1,954	..
Children's services *(d)*	—	—	1,076	2,000	3,634	—
Pensioner housing grants	12,421	12,430	12,171	11,897	13,376	13,913
Other	7	r666	r1,331	1,323	4,443	4,651
Total, grants for capital purposes	**14,219**	**r14,475**	**r17,289**	**15,999**	**23,407**	**19,749**
	Personal benefit payments *(e)*					
Sickness benefits	78,937	99,744	120,550	154,879	168,238	176,016
Benefits to ex-servicemen and their dependants	422,462	468,546	610,907	720,465	826,000	902,498
Invalid and other permanent disability benefits	348,353	372,759	398,544	437,874	502,500	575,100
Old age benefits	1,469,042	1,674,481	1,808,977	1,970,534	2,084,611	2,175,302
Widows, deserted wives, divorcees and orphans benefits	251,468	273,975	r286,772	308,597	324,700	332,300
Unemployment benefits	357,308	449,871	881,183	1,158,650	1,177,280	1,236,437
Family and child benefits	342,358	376,062	r491,148	549,198	549,768	564,400
Supporting parents benefits *(a)*	151,810	228,229	284,165	345,029	414,908	477,848
Social security n.e.c. *(f)*	40,665	48,049	59,300	52,032	59,300	66,000
Welfare services	14,009	22,472	28,087	17,578	20,200	23,000
Total, personal benefit payments	**3,476,412**	**4,014,188**	**4,969,633**	**5,714,836**	**6,127,505**	**6,528,901**

(a) From 1 November 1980 the supporting parent's benefit was extended to cover the first six months of sole parenthood. Consequently, "Assistance for deserted wives", previously granted under the States Grants (Deserted Wives) Act, was replaced by this pension. Assistance for wives, who have been deserted for at least 6 months, is included in "Widows etc. benefits". *(b)* In 1985-86, the Commonwealth Government introduced assistance under the Home and Community Care Act 1985 which subsumed assistance previously provided under the home care and senior citizens' centres programs. *(c)* From 1986, the Commonwealth is providing grants towards the cost of assessment teams which match the needs of aged and disabled persons to available services. *(d)* Excludes preschool education grants. *(e)* Includes payments to recipients in the Australian Capital Territory. *(f)* Excludes special benefits to migrants in accommodation centres up to 30 June 1981. Includes such benefits thereafter.

STATE GOVERNMENT EXPENDITURE

The next table shows State Government current and capital expenditure on social security and welfare.

New South Wales State Government Expenditure on Social Security and Welfare ($'000)

Particulars	*Year ended 30 June* *r1982*	*r1983*	*1984*	*1985*	*1986*
Current expenditure —					
Social security	59,997	75,421	79,319	101,890	101,802
Welfare services	88,379	106,799	145,183	207,630	198,869
Social security and welfare services n.e.c.	93	89	75	125	124
Total current expenditure	*148,469*	*182,309*	*224,577*	*309,645*	*300,795*
Capital expenditure	6,344	9,646	8,845	22,394	19,240
Total current and capital expenditure	**154,813**	**191,955**	**233,422**	**332,039**	**320,035**

FURTHER REFERENCES

A.B.S. Publications (N.S.W. Office): *Pocket Year Book of New South Wales* (Catalogue No. 1302.1); *Public Awareness and Knowledge of Selected Welfare Services, New South Wales* (4401.1)

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Other Publications: Annual Report of the Department of Social Security and Social Security pamphlets, chart "A Guide to Department of Social Security Payments" and Statistics Section reports. Annual Reports of the Repatriation Commission, the Department of Aboriginal Affairs, the Department of Community Services and the (State) Department of Youth and Community Services.

6

HEALTH

STRUCTURE OF HEALTH SERVICES

Health services in New South Wales are provided by private individuals and organisations, and government authorities. The Commonwealth and State Governments and local councils have various regulatory and co-ordination responsibilities, and provide funds to finance (wholly or partly) the operation and use of various health services.

There are State Government institutions and public and private hospitals for the treatment of sickness, State and private institutions for those suffering from psychiatric disorders, and repatriation hospitals mainly for ex-service personnel suffering from war-caused injuries or illness. The Commonwealth Government provides funds to the State within tax sharing arrangements and pays various types of health benefits for eligible patients. In local government areas, municipal and shire councils administer ordinances under the Local Government Act as to hygiene and sanitation.

The Commonwealth Government is responsible for the operation of the national health scheme known as Medicare.

The notification of certain infectious diseases is compulsory. Medical practitioners, pharmacists, etc. must be registered before engaging in their profession.

COMMONWEALTH HEALTH AUTHORITIES

Department of Health

The Commonwealth Department of Health is responsible for the administration of Government policy in respect of national medical and hospital insurance and the national health benefits scheme. The Department considers the safety and efficacy of therapeutic goods for which marketing approval is sought and administers the pharmaceutical benefits scheme. It is responsible (through the Australian Institute of Health) for the development of national health statistics and advises on strategies to improve the general level of health throughout the community. The National Health and Medical Research Council advises state and federal governments on all issues related to public health. The department promotes national campaigns against drug abuse, and against acquired immune deficiency syndrome (AIDS) and other communicable diseases. It administers the Australian Radiation Laboratory, the National Acoustic Laboratories, the Ultrasonics Institute and the Commonwealth Pathology Laboratory Service.

Department of Community Services

The Department of Community Services administers schemes relating to nursing home benefits, deficit financing arrangements, domiciliary nursing care benefits, home nursing subsidies and aids for disabled people.

Department of Primary Industry

The Department of Primary Industry is responsible for plant and animal quarantine matters.

Other Commonwealth Authorities

The Commonwealth Serum Laboratories Commission controls laboratories established to ensure the supply of essential biological products in accordance with national health needs. The laboratories, which are self-supporting, produce a wide range of vaccines, serums, antibiotics, insulin, and other products for use in the diagnosis, prevention, and treatment

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of human and animal diseases. The laboratories also produce a range of prescribed non-biological products on a commercial basis, and undertake research in various areas.

The Health Insurance Commission administers the provision of Medicare medical benefits and operates Medibank Private, a registered health benefits organisation, in competition with other private health insurance organisations.

STATE HEALTH AUTHORITIES

Department of Health

The (N.S.W.) Department of Health is responsible for the administration of health services in New South Wales. A prime aim of the Department of Health is to ensure the provision of comprehensive health care services for the population of New South Wales. It is responsible for the activities of area health services, public hospitals, including State psychiatric hospitals, hospitals for the developmentally disabled and other State hospitals, health education, forensic medicine, immunisation, diagnostic and analytical laboratories, and ambulance services. The Department is also responsible for the administration of Acts of Parliament relating to pure foods, therapeutic goods and sanitation, and for the activities of local government authorities relating to public health matters.

The Central Office of the Department is responsible for determination of policy, development of quantity and quality standards of operations, review of activity programs and budgets, monitoring of performance, and determination of industrial issues and other matters that do not lend themselves to regional determination, including major building programs.

Regionalisation of health service administration and delivery has been undertaken in New South Wales in order that services be more accessible, responsive, and responsible to diverse local populations. Eleven Regional Offices of Health operate throughout the State.

In addition to its public health, area health services and hospital responsibilities, the Department of Health is responsible for co-ordinating health care facilities operated by voluntary organisations, local government authorities, private medical practices, private hospitals and nursing homes, and government departments and authorities. When determining the health needs of the community, and planning to meet these needs, the Department takes into account health services provided by such organisations and agencies.

Other State Authorities

These authorities include the Protective Commissioner of the Supreme Court of New South Wales (who protects the estates of certain categories of patients in psychiatric hospitals), boards established for the registration of health professionals, the Institute of Psychiatry, the State Cancer Council (for cancer education and research), area health services, the Mental Health Review Tribunal, and various boards and committees such as the Poisons Advisory Committee and the Pure Food Advisory Committee.

MEDICARE

On 1 February 1984 the Commonwealth Government introduced the universal health scheme known as Medicare. The financing arrangements under the Medicare program feature the following major elements:

(a) automatic entitlement under a single public health fund to medical and optometrical benefits of 85 per cent of the Medical Benefits Schedule fee, with a maximum patient payment for any service of $20 where the Schedule fee is charged; and

(b) access without direct charge to public hospital accommodation and to in-patient and out-patient treatment by doctors appointed by the hospital.

Medicare benefits do not cover hospital charges for treatment as a private patient in a public hospital, i.e. where patients elect to be treated by their own doctor, nor do they cover private hospital charges. The State government increased the accommodation charge for private treatment in a shared ward of a public hospital in New South Wales to $120 per day from 1 November 1986.

Medicare Levy

The Medicare program is financed in part by the Medicare levy which is payable on taxable personal income where that income is above a certain threshold.

From 1 December 1986, no levy is payable by single people earning $8,020 p.a. or less or by sole parents and married couples with a (combined) income of $13,370 p.a. or less. The levy-free income level rises by $1,660 p.a. for each dependent child.

Eligibility for Medicare Benefits

Medicare benefits are available to all persons ordinarily resident in Australia with the exception of members of foreign diplomatic missions and their dependants. Eligibility also extends to Australian residents receiving medical services while travelling overseas and to persons visiting Australia who are residents of countries with whom Australia has a reciprocal health care agreement (see later in this section).

Medical Benefits

The *Health Insurance Act 1973* provides for a medical benefits schedule which lists medical services and the schedule (standard) fee applicable in each State in respect of each medical service. The schedule covers services attracting Medicare benefits rendered by legally qualified medical practitioners, certain prescribed medical services rendered by approved dentists in the operating theatres of approved hospitals, and optometrical consultations by participating optometrists. Schedule fees are set and updated by an independent fees tribunal which is appointed by the government. The fees so determined are to apply for Medicare benefits purposes. Medical services in Australia are generally delivered either by private medical practitioners on a fee-for-service basis, or by medical practitioners employed in hospitals.

Where a medical service is provided by a private medical practitioner on a fee-for-service basis, Medicare refunds 85 per cent of the medical benefits schedule fee cost or, the schedule fee less $20, whichever is the greater. For private medical services rendered outside hospitals, it is not possible to insure with private health insurance organisations to cover the 15 per cent "gap". However, should an individual accumulate "gap" payments in excess of $150 in a year, Medicare will pay benefits at 100 per cent of the schedule fee for each service for the remainder of the year. Under changes to the basic table operated by health funds from 1 September 1985, "gap" benefits are payable for medical services rendered in hospital.

Under Medicare, medical practitioners are able to direct bill for any patient. In such cases, they receive the Medicare benefit as full payment. Previously, direct billing was limited to services rendered to eligible Pensioner Health Benefit and Health Care cardholders, and their dependants.

Medicare medical benefits are administered by the Health Insurance Commission.

Hospital Care

Since the introduction of Medicare, the number of people taking out private health insurance has fallen substantially. In June 1983, prior to Medicare, approximately 68 per cent of the N.S.W. population was insured for hospital care; in June 1986 this figure stood at 50 per cent.

This change in insurance status has had a major effect on the number of persons electing to be treated as non-chargeable patients in public hospitals in N.S.W. The proportion of bed days occupied by non-chargeable patients has increased from 47 per cent in 1982-83 to 67 per cent in 1985-86.

Reciprocal Health Care Agreements

Australia has entered into reciprocal health care agreements with New Zealand and the United Kingdom. Under the agreements, short term visitors from New Zealand or the United Kingdom to Australia and vice versa are eligible for access to the host country's health care system for medical conditions which require immediate treatment. Similar agreements are being negotiated with Yugoslavia, Greece, Ireland and Spain and an agreement with Italy will come into effect when it is ratified by the Italian Parliament.

GOVERNMENT OUTLAYS ON HEALTH

The next table shows, for the last six years, selected government outlays in New South Wales that have been classified to the purpose of "health" in the Australian National Accounts.

The Commonwealth Government outlays shown comprise grants to the New South Wales Government for current purposes and personal benefit payments to residents of New South Wales. The figures do not represent the total Commonwealth Government outlays on health in New South Wales; they exclude, for example, grants for capital purposes, direct grants to local government authorities, and expenditure in New South Wales on administration of Commonwealth Government health programs.

On 30 June 1981, the hospital cost-sharing agreement with New South Wales expired and specific purpose payments to all States for public hospitals, community health, and school dental services were terminated (apart from some outstanding commitments). Commonwealth recurrent payments for health are now an "identified" component of general purpose revenue grants (personal income tax sharing entitlements).

New South Wales also receives compensation payments associated with the introduction of Medicare (see previous section) from 1 February 1984. The payments are in addition to, and independent of, the identified health grant and tax sharing arrangements. Medicare grants are designed to compensate for revenue losses associated with the abolition of accommodation and care charges for public patients in public hospitals; the reduction of accommodation fees for private patients in public hospitals; and increased costs arising from more patients opting for public rather than private status.

The table also shows total State government current and capital expenditure on health in New South Wales.

Government Outlays on Health in New South Wales *(a)*

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986p*
			Commonwealth Government			
Grants to the State for current purposes —						
"Identified" health grant	..	477,736	469,005	489,116	521,442	563,000
Public hospitals	469,092	*(b)* ..	12,942	*(c)*104,096	*(c)*351,903	420,755
Community health	23,312	*(b)* ..	..	r92	..	..
School dental services	3,117	*(b)*200	191	..	301	..
Blood transfusion service	2,155	2,299	2,929	2,992	3,228	3,719
Aboriginal health	1,612	1,885	1,928	1,928	2,007	1,531
Other health services	r93	r433	r39	r55	103	103
Drug education campaigns	550	550	471	502	547	4,724
Funds to combat AIDS	..	..	..	..	1,529	2,397
Total, grants to the State for current purposes	**499,931**	**483,103**	**487,505**	**r598,781**	**881,060**	**996,229**
Personal benefit payments *(d)* —						
Hospital and other institutional services and benefits	r192,887	r268,033	r341,709	r350,581	247,700	268,400
Clinic and other non-institutional services and benefits	299,915	321,628	r404,036	r569,881	950,100	1,095,100
Pharmaceuticals, medical aids and appliances	127,131	155,898	173,829	r193,669	222,100	242,400
Health n.e.c. *(f)*	r1,700	r1,900	r2,133	r2,358	2,900	3,400
Total, personal benefit payments	**621,633**	**747,459**	**921,707**	**r1,116,489**	**1,422,800**	**1,609,300**
			State Government			
Current expenditure —						
Hospital and other institutional services and benefits	1,146,205	1,290,841	1,272,252	1,509,935	1,801,520	2,061,324
Clinic and other non-institutional services and benefits	73,197	81,564	107,042	123,264	134,204	148,079
Public health	4,148	5,995	4,284	8,015	7,208	*(e)*45,873
Health research	1,958	1,414	1,322	2,239	2,358	2,236
Health n.e.c.	54,721	59,841	51,027	53,746	58,686	*(e)*36,222
Total current expenditure	**1,280,229**	**1,439,655**	**1,435,927**	**1,697,199**	**2,003,976**	**2,293,734**
Capital expenditure —						
Hospital and other institutional services and benefits	55,797	43,333	41,293	44,845	74,382	100,938
Clinic and other non-institutional services and benefits	7,963	5,951	7,388	7,295	11,079	12,976
Public health	323	180	158	202	(—)937	157
Health n.e.c.	..	..	..	..	..	129
Total capital expenditure	**64,083**	**49,464**	**48,839**	**52,342**	**84,524**	**114,200**

(a) See text preceding table. *(b)* Cost-sharing agreement expired 30 June 1981 — payments shown for 1982-83 represent settlement of outstanding commitments in respect of 1980-81. *(c)* Medicare compensation grants from 1 February 1984, including such grants for community health. *(d)* Includes benefits paid to non-residents of New South Wales through benefit organisations registered in New South Wales. *(e)* As a result of the more detailed dissections obtained due to program budgeting in 1986, expenditure formerly included in "Health n.e.c." has been reclassified to "Public health". *(f)* Payments for 1981 and 1982 are estimated.

LOCAL GOVERNMENT HEALTH SERVICES

Certain public health services are administered by local government authorities. In the Sydney and Wollongong areas, sewerage and stormwater drainage services are provided by the Metropolitan Water Sewerage and Drainage Board; similar services are provided in the Newcastle district by the Hunter District Water Board, at Broken Hill by the Broken Hill Water Board, and in other districts by municipal or shire councils.

Municipal and shire councils are responsible for the collection and disposal of garbage, and for the provision of sanitary services in unsewered built-up areas. Miscellaneous health services administered by the councils include street cleaning and drainage, supervision of the sanitation and drainage of buildings, and the prevention of nuisances. Councils also assist both the Commonwealth and State Departments of Health in such matters as the immunisation of children, the control of infectious diseases, the administration of the Pure Food Act 1908 and the medical examination of school children in country areas.

Further details of health services provided by local government authorities are contained in the "Government" and "Public Finance" chapters.

HEALTH PROFESSIONALS

Primary health care services are provided mainly by private general medical practitioners, community nurses, and other health professionals. General practitioners are registered physicians who elect to practise privately and do not limit themselves to one branch of medicine. They often refer patients to specialist medical practitioners for more specialised treatment. Patients are also referred for treatment to persons in the para-medical professions such as speech therapy, orthoptics, or physiotherapy.

The State Government exercises a measure of supervision over the practice of professional persons engaged in the treatment of sickness and disease. Chiropodists, chiropractors and osteopaths, dental technicians and dental prosthetists, dentists, medical practitioners, nurses, optical dispensers, optometrists, pharmacists, and physiotherapists are required to register with a board established for each profession under statutory authority. Registration is renewable annually.

Medical Practitioners, Dentists, Pharmacists, etc. on Register, N.S.W.

	At 31 December		*At 30 June*			
Particulars	*1981*	*1982*	*1983*	*1984(a)*	*1985*	*1986*
Chiropodists	456	418	432	447	458	462
Chiropractors and/or osteopaths	499	564	610	690	759	818
Dental technicians and dental prosthetists	931	925	951	953	954	953
Dentists	3,024	3,097	3,191	3,162	3,208	3,330
Medical practitioners	17,552	18,252	17,740	17,589	17,545	18,133
Optical dispensers	725	775	826	765	793	866
Optometrists	719	816	775	848	887	933
Pharmacists	6,134	6,270	6,450	6,051	6,007	6,046
Physiotherapists	2,883	2,842	2,994	3,042	3,140	3,310

(a) An adjustment made to the register in 1984 to correct for previous recording errors, accounts for the drop in certain types of registrants in 1984.

Nurses are required to register in terms of the Nurses Registration Act 1953. Seven classes of nurses are registered (general, geriatric, midwifery, psychiatric, infants', mothercraft and mental retardation), but nurses may register under more than one classification. Registration is renewable annually.

Nurses' Registrations, N.S.W.

	Year ended 31 December		*On register at 30 June*			
Class	*1981*	*1982*	*1983*	*1984(a)*	*1985*	*1986*
General	56,021	60,448	62,547	53,314	57,094	57,933
Geriatric	1,042	1,054	1,056	819	814	763
Infants' *(b)*	175	181	182	138	139	122
Mental retardation	1,750	1,971	2,068	1,955	2,164	2,290
Midwifery	19,572	20,859	21,509	18,335	19,319	19,607
Mothercraft	2,889	3,055	3,143	2,593	2,749	2,801
Psychiatric	5,605	6,029	6,234	5,397	5,800	6,041
Total persons registered	**61,421**	**66,227**	**68,522**	**58,144**	**62,621**	**62,378**

(a) An adjustment made to the register in 1984 to correct for previous recording errors, accounts for the significant drop in registrants in 1984. *(b)* Only nurses registered in this class prior to September 1975 are permitted to renew their registration as infants' nurses.

Enrolled nurses (legally known as "nursing aides") who practise in New South Wales are also required to enrol annually in terms of the Nurses Registration Act. There were 13,599 enrolled nurses on the roll at 30 June 1986.

Nurse Education

In November 1983, the State Government announced major changes to the arrangements for basic nurse education in the State. From the end of 1984, there have been no further intakes into hospital-based nursing schools. Persons wishing to become nurses enrol instead in a three-year full-time course at a college of advanced education, leading to the award of a Diploma of Applied Science (Nursing). On completion of the course, students will be eligible to be entered on the register of nurses.

AREA HEALTH SERVICES, HOSPITALS AND NURSING HOMES

Institutions for the treatment of sickness and disease comprise public hospitals and homes, private hospitals and nursing homes, State and private psychiatric hospitals, State hospitals for the developmentally disabled, other State hospitals (primarily for the treatment of geriatric patients) and repatriation hospitals.

AREA HEALTH SERVICES

Area health services are organisations that manage both hospital and community health services across a defined geographic area in N.S.W. and have responsibility for the planning of services to meet the health needs of the population. The management authority is a board of directors called the area health board.

Area health services and boards are constituted under the Area Health Services Act 1986. The first 27 area health services were established in the Sydney, Hunter and Illawarra regions on 1 October 1986.

PUBLIC HOSPITALS AND HOMES

The Public Hospitals Act 1929, provides for the systematic organisation of the public hospital services: viz. hospitals; convalescent, nursing, etc. homes; and organisations which provide district nursing services, aerial medical services, blood transfusion services, etc., or services to hospitals. The Act is administered by the (N.S.W.) Department of Health.

Public hospitals and related bodies are classified under the Public Hospitals Act. Further details are shown in the 1986 issue of the New South Wales Year Book.

The Department of Health determines which hospitals, etc. are to be subsidised, and the amount of subsidy to be paid to each institution. It also has power to establish new hospitals and to close down or amalgamate existing hospitals that are incorporated under the Public Hospitals Act.

Out-patient services, provided at public hospitals, generally include casualty, pathology and X-ray, and may include pharmacy, physiotherapy and speciality clinics.

Special facilities for dental treatment are provided at the United Dental Hospital, Sydney, at other public hospitals in Sydney and Newcastle, and by dental clinics that are transported by road or train through country districts.

The statistics of public hospitals and homes shown in the next three tables exclude State hospitals (see later).

Public Hospitals and Homes, N.S.W.

	Institutions (a)			*Beds*			
At 30 June	*Sydney Health Region*	*Balance of N.S.W.*	*N.S.W.*	*Sydney Health Region*	*Balance of N.S.W.*	*N.S.W.*	*Per 1,000 population, N.S.W. (b)*
1981	89	195	284	15,499	13,172	28,671	5.5
1982	84	190	274	15,084	12,868	27,952	5.3
1983	84	189	273	14,757	12,397	27,154	5.1
1984	80	189	269	14,804	11,632	26,436	4.9
1985	80	180	260	14,594	11,573	26,167	4.8
1986	78	180	258	14,612	11,919	26,531	p4.8

(a) The nursing home sections of public hospitals are counted as separate institutions. *(b)* Estimated resident population.

In 1986, the average accommodation in public hospitals and homes was 101 beds (182 in Sydney and 64 in other districts).

Public Hospitals and Homes, N.S.W.: Beds by Health Region, 30 June 1986

Health Region	*Hospitals*	*Homes*	*Total beds*	
			Number	*Beds per 1,000 population (a)*
Sydney —				
Northern Metropolitan	2,987	355	3,342	3.7
Southern Metropolitan	5,939	511	6,450	5.7
Western Metropolitan	4,011	809	4,820	3.5
Total, Sydney	*12,937*	*1,675*	*14,612*	*4.3*
Balance of N.S.W. —				
North Coast	1,849	120	1,969	5.3
New England	1,155	30	1,185	6.6
Orana and Far West	1,069	116	1,185	8.2
Central Western	1,094	186	1,280	7.6
South West	1,462	85	1,547	6.1
South Eastern	728	173	901	5.9
Illawarra	1,101	107	1,208	3.7
Hunter	2,146	498	2,644	5.2
Total, balance of N.S.W.	*10,604*	*1,315*	*11,919*	*5.6*
Total, N.S.W.	**23,541**	**2,990**	**26,531**	**4.8**

(a) Preliminary estimated resident population.

Public Hospitals and Homes, N.S.W.: Patients and Bed-days

Year ended 30 June	*In-patients (a)*			*Out-patients*		*Average operating cost per occupied bed per day ($)*	*Babies born in hospital*	
	Treated	*No. of bed-days*	*Average daily no. of occupied beds*	*Treated*	*Attendances*		*No.*	*Bed-days*
1981	949,616	7,738,120	21,203	3,517,609	9,981,676	129.92	78,056	477,584
1982	936,467	7,508,017	20,570	3,097,753	9,186,271	159.08	79,367	461,664
1983	932,402	7,305,391	20,015	3,313,565	8,637,686	177.71	80,648	457,748
1984	913,228	7,221,318	19,730	3,631,610	10,627,911	186.09	78,176	426,614
1985	812,787	6,725,023	18,425	3,564,023	11,142,205	207.35	78,038	414,194
1986	886,036	6,820,517	18,686	3,762,763	11,977,222	223.69	77,772	403,584

(a) Excludes newborn babies.

The principal source of the income of public hospitals and homes and public hospital services is government assistance, which accounted for $1,816m (or 88 per cent) of total operating receipts of $2,059m in 1985-86. Patients' fees accounted for 11 per cent of the total. Of total operating payments of $2,052m in 1985-86, gross salaries and wages accounted for $1,426m (or 69 per cent).

The next table shows the operating receipts and payments of public hospitals and homes and public hospital services in New South Wales in each of the last six years.

Public Hospitals and Homes and Public Hospital Services, N.S.W.: Operating Receipts and Payments ($'000)

Item	*Year ended 30 June*					
	1981	*1982*	*1983*	*1984*	*1985*	*1986*
Operating receipts —						
Patients' fees	210,687	330,260	447,745	352,995	204,252	230,207
Commonwealth Government grants	3,308	3,762	4,544	5,121	5,886	6,900
Commonwealth nursing home benefits	11,928	14,984	20,047	23,805	24,651	24,956
Other hospital revenue	13,618	12,213	14,984	20,145	25,407	13,104
Total receipts (other than subsidy)	*239,541*	*361,220*	*487,320*	*402,066*	*260,195*	*275,167*
Commonwealth/State subsidy	989,225	1,091,075	1,095,360	1,318,109	1,570,275	1,784,231
Total operating receipts	**1,228,766**	**1,452,294**	**1,582,680**	**1,720,175**	**1,830,470**	**2,059,398**
Operating payments	**1,244,011**	**1,442,002**	**1,605,337**	**1,728,235**	**1,838,953**	**2,052,232**

At 30 June 1986, the paid staff of the public hospitals and homes, comprising full-time staff plus the full-time equivalent of part-time staff, totalled 70,168 and included 3,494 medical officers and 30,396 nurses.

PRIVATE HOSPITALS AND NURSING HOMES

In New South Wales, every private hospital and nursing home is required to hold a licence under the Private Hospitals Act 1908. Standards are prescribed for the construction, equipping, staffing and conduct of private hospitals and nursing homes. The licensee of a private hospital or nursing home is responsible for compliance with prescribed standard.

Private hospitals and nursing homes are usually run as business enterprises, with a significant proportion operated on a non-profit basis by charitable or church-affiliated organisations.

The Private Health Establishments Act 1982 (assented to in 1982, but not proclaimed at the time of preparation of this manuscript) will replace the Private Hospitals Act 1908. The new Act will provide for the licensing and control of private hospitals, nursing homes and certain residential centres for handicapped persons.

Particulars of private hospitals in New South Wales in recent years are shown in the following table. The table excludes 6 private psychiatric hospitals (which are authorised under the Mental Health Act 1958).

Private Hospitals, N.S.W.

	Private Hospitals			*Number of beds (a)*			
Date	*Sydney Health Region*	*Balance of N.S.W.*	*N.S.W.*	*Sydney Health Region*	*Balance of N.S.W.*	*N.S.W.*	*Per 1,000 population, N.S.W. (b)*
At 31 December —							
1981	78	22	100	4,434	1,187	5,621	1.1r
1982	76	22	98	4,696	1,235	5,931	1.1r
1983	76	22	98	4,588	1,273	5,861	1.1r
1984	75	22	97	4,464	1,299	5,763	1.1r
At 30 June —							
1985	74	22	96	4,463	1,299	5,762	1.1
1986	73	22	95	4,422	1,319	5,741	p1.0

(a) Excludes cots and bassinets prior to 1982. *(b)* Estimated resident population.

Nursing homes provide accommodation and nursing care for the frail aged and disabled. The next table shows particulars of licensed nursing homes in New South Wales in recent years.

Private Hospitals, N.S.W.

	Nursing Homes			*Number of beds (a)*			
Date	*Sydney Health Region*	*Balance of N.S.W.*	*N.S.W.*	*Sydney Health Region*	*Balance of N.S.W.*	*N.S.W.*	*Per 1,000 population, N.S.W. (b)*
At 31 December —							
1981	357	109	466	18,937	4,769	23,706	4.5
1982	356	118	474	19,521	5,331	24,852	4.7
1983	360	123	483	19,957	5,748	25,705	4.8
1984	354	129	483	19,986	6,374	26,360	4.8
At 30 June —							
1985	354	132	486	19,987	6,512	26,499	4.8
1986	357	135	492	20,214	6,730	26,944	p4.9

(a) Excludes cots and bassinets prior to 1982. *(b)* Estimated resident population.

PSYCHIATRIC CENTRES

In New South Wales, psychiatric inpatient treatment is provided in State psychiatric hospitals, in psychiatric units in public hospitals and in private psychiatric hospitals. Psychiatric treatment is authorised principally by the Mental Health Act 1958. Where this Act does not apply, treatment is provided on an informal basis as in general public hospitals.

At 31 December 1986, there were 9 psychiatric hospitals with approximately 2,300 beds operated by the (N.S.W.) Department of Health, 6 private psychiatric hospitals (419 beds) authorised under the Mental Health Act and 17 psychiatric units at public hospitals with approximately 400 beds also authorised under the Mental Health Act. Psychiatric units are being developed in public hospitals to provide inpatient treatment on a more readily accessible basis than in the State hospitals.

Additional mental health services for children, adolescents and families are provided outside the provisions of the Mental Health Act at some public hospitals and by regional community health services.

In December 1983, the N.S.W. Parliament passed legislation designed to replace the Mental Health Act 1958. This legislation comprised the Mental Health Act 1983, the Protected Estates Act 1983, the Crimes (Mental Health) Amendment Act 1983 and the Miscellaneous Acts (Mental Health) Repeal and Amendment Act 1983. Further amendments were made in 1986.

At the time of preparation of the manuscript, the 1958 Act is still largely in force. The sections of the 1983 legislation that have been proclaimed deal with forensic patients, establishment of the Mental Health Review Tribunal, banning of deep sleep therapy and insulin coma therapy and also deal with the strict monitoring of psychosurgery. Further implementation of the 1983 Acts is planned.

Under both the 1958 and the 1983 Mental Health Acts, there are 3 classifications of admission, viz voluntary, involuntary and forensic. The largest group of patients are those admitted on a voluntary (or informal) basis. These people can accept or decline treatment and negotiate their stay in hospital with the treating doctor.

A patient admitted involuntarily, usually on a doctor's certificate or a police request, has his/her case reviewed at a magistrate's inquiry soon after admission. The magistrate may order further hospital treatment if this is thought to be required. Forensic patients are those people with mental illness who come from the criminal justice system and remain in a psychiatric centre until their release is authorised by legal authorities.

The Protected Estates Act 1983 arose from the property provisions of the old Mental Health Act. This new Act provides for the protection of a person's property by the Protective Division of the Supreme Court.

STATE HOSPITALS

The Department of Health operates 21 hospitals (i.e. those included under the Fifth Schedule of the Public Hospitals Act 1929). These comprise State psychiatric hospitals, State hospitals for the developmentally disabled, other State hospitals, State nursing homes and the prisoner medical service. There were 7,418 beds in these institutions at 30 June 1986.

Richmond Inquiry

In 1982, the N.S.W. Minister for Health established an Inquiry into Health Services for the Psychiatrically Ill and Developmentally Disabled. The Inquiry's report recommended extensive changes to the services to these two distinct groups of clients.

Implementation of the report has so far resulted in the placement of over 600 clients, formerly resident in 5th schedule institutions, into community residences. Community support services have been provided for these people.

The present phase of the plan involves continued expansion of community based services and more community placements. In 1986-87, $14m was provided for the implementation of the Richmond plan.

REPATRIATION HOSPITALS

In accordance with provisions of the *Veterans Entitlements Act 1986*, free treatment is provided by the (Commonwealth) Department of Veterans" Affairs to all eligible persons as defined in the Act. In addition, many veterans are entitled to receive free medical treatment and drugs for all disabilities, whether service-related or not. Urgent medical treatment and drugs may be provided free to all Vietnam veterans and their families at repatriation hospitals, or at country hospitals in the case of veterans and their families living in country areas. Special provisions exist for the treatment of cancer and pulmonary tuberculosis, whether service-related or not. Free medical treatment and drugs are also provided for certain dependants of deceased veterans. Patients from the general community may also receive treatment at repatriation hospitals provided bed capacity is available above the needs of the entitled veterans and the hospital facilities are appropriate to the treatment required.

The average daily bed occupancy for the repatriation component in the repatriation hospitals in New South Wales was 581 for the Repatriation General Hospital Concord and the 151 for Lady Davidson Hospital in 1985-86. There is also a repatriation block at Rozelle Psychiatric Hospital and a ward set aside for repatriation patients at the Queen Victoria Memorial Hospital (Picton), as well as an Artificial Limb and Appliance Centre in Sydney.

The Local Medical Officer Scheme, operated by the Department of Veterans" Affairs with the co-operation of the Australian Medical Association, enables eligible patients to receive general medical practitioner services and referrals for other forms of specialist medical treatment as required.

COMMONWEALTH GOVERNMENT BENEFITS

Nursing Home Benefits

The Commonwealth Department of Community Services provides benefits towards the cost of accommodation of eligible patients in nursing homes approved under the *National Health Act 1953* and the *Nursing Homes Assistance Act 1974*. The benefits are paid direct to nursing homes on behalf of individual nursing home patients, the amount of benefit paid being deducted from the account payable by the patient.

Patients in these homes are required to make a statutory minimum contribution towards the cost of their care and accommodation.

In 1986-87, expenditure by the Commonwealth Government on nursing home benefits in New South Wales and the Australian Capital Territory is expected to be $399m.

Nursing Homes Assistance (Deficit Financing Arrangements)

As an alternative to the provision of Commonwealth nursing home benefits under the *National Health Act 1953* (described above), the *Nursing Homes Assistance Act 1974* provides for the Commonwealth Government to meet the approved operating deficits and the costs of approved asset replacement of nursing homes conducted by local government, charitable and benevolent organisations. Nursing homes wishing to participate in these arrangements must enter into an agreement with the Government for this purpose. Commonwealth nursing home benefits are not payable in respect of patients accommodated in such homes. (Patients in these homes are required to pay a prescribed fee generally equivalent to the statutory minimum payment described in the previous sub-section.)

LONG TERM NURSING HOME TYPE PATIENTS IN HOSPITALS

Patients who are accommodated in either private or public hospitals for more than 35 continuous days may be classified as nursing home type patients and, as a consequence, be required to make a non-insurable contribution in the same way that nursing home patients do. For private nursing home type patients in public hospitals, hospital charges and basic health fund benefits are reduced. In a private hospital, fund benefits are also reduced.

Where a patient's doctor considers that a patient has continuing need for acute hospital care, the doctor may issue a certificate under section 3B of the Health Insurance Act to that effect, and the nursing home type patient arrangements do not apply. The arrangements also provide for a review mechanism in the form of Acute Care Advisory Committees which may review such certificates where a dispute exists and recommend that they be varied or revoked.

COMMUNITY AND PUBLIC HEALTH SERVICES

COMMUNITY HEALTH SERVICES

State community health services aim to promote and maintain the health of people through a comprehensive range of non-institutional services, provided from community health centres, hospitals, schools, in homes or recreation centres.

Services include home nursing, health education, day care for the aged and special groups, health screening, drug and alcohol education, women's health services, counselling for individuals and families, dental services, mental health counselling, advisory services for parents and children and ethnic services.

Services are administered by area health services, hospitals and, in some cases, non-government organisations funded by the Department of Health.

HOME NURSING SERVICES

Domiciliary Nursing Care Benefit

The Commonwealth Government provides a Domiciliary Nursing Care Benefit of $42 per fortnight to persons who provide continuous care in their own homes for chronically ill or infirm relatives who would otherwise require admission to a nursing home. Patients must be aged 16 years or more and be receiving regular visits by a registered nurse.

During 1986-87, $10.2m is expected to be paid to beneficiaries in New South Wales and the Australian Capital Territory.

The Sydney Home Nursing Service

The Sydney Home Nursing Service provides home nursing care to ex-hospital patients and other people in need of nursing care in the Sydney metropolitan area. At 30 June 1986, the Service employed 204 registered nurses and 10 enrolled nurses, who worked from 9 public hospitals and 13 community health centres situated throughout Sydney. In the year ended 30 June 1986, 23,136 patients were attended to in 526,131 visits. The Service derives its income from the Home and Community Care program, patients" fees, and public and auxiliary donations.

OTHER COMMUNITY HEALTH SERVICES

Family and Child Health

The family and child health section of the N.S.W. Department of Health advises on matters relating to the health of children and families.

Activities include investigation of maternal and perinatal deaths and action to prevent such deaths, promotion of programs aimed at prevention of inherited disorders and birth defects, monitoring of paediatric and obstetric services, epidemiological research of sudden infant death syndrome and the promotion of health education programs aimed at children and their families.

Dental Health Services

The dental health services program, administered by the N.S.W. Department of Health, aims to raise the standard of dental health care in the community by widening access to dental health care services. At 30 June 1986, 52 public hospitals provided outpatient dental care, including the United Dental Hospital, the Westmead Dental Clinical School, and the Royal Newcastle Hospital.

The School Dental Scheme aims to provide free dental care to all infant and primary school children. Treatment is provided through school dental clinics, both fixed and mobile, located in hospitals or school grounds and staffed basically by school dental therapists who work under the direction, supervision and control of registered dentists. During 1986, 206,000 children in New South Wales received routine dental treatment under the Scheme.

The significant effect of water fluoridation and dental health education programs has become increasingly evident in the dental health status of New South Wales school children. A 12 year old child, living in a fluoridated area of the State, would be expected to exhibit, on average 1.7 decayed, missing or filled teeth compared to an average of 9.3 such teeth in 1955-56 prior to fluoridation. Further, approximately 41 per cent of the current population of 12 year olds have experienced no dental disease, compared to only 1 per cent of that population in 1955-56.

Aboriginal Health Program

The N.S.W. Department of Health conducts an Aboriginal Health Program in liaison with the Commonwealth Department of Aboriginal Affairs. The Program employs community health workers and nurses to conduct nutrition, vaccination and other health programs for Aboriginal communities.

Aboriginal-controlled medical services operate in various centres in New South Wales.

PUBLIC HEALTH SERVICES

Public Health Services

The main function of the Institute of Public Health Bio Sciences is administration of statutory public health responsibilities vested in the (N.S.W.) Department of Health. The Institute comprises the Communicable Diseases Section, the Food Inspection Branch, the Pharmaceutical Services Branch, the Health Surveying Branch and the Radiation Health Services Branch.

Food, Drugs and Poison Inspection

Inspectors from the N.S.W. Department of Health investigate and implement action with regard to breaches of acts relating to food, drugs and poisons that are administered by the department. This work is undertaken in close liaison with other public authorities at Commonwealth, State and local government levels, particularly in food and environmental sanitation matters which involve shared responsibilities under health and other legislation.

Scientific Services

The N.S.W. Department of Health provides a number of scientific health services as described below:

- *The Division of Analytical Laboratories* provides essential scientific services to the State's public health, police, coronial and consumer protection systems. These services include chemical, biological and physical tests on food, water, drugs, scene-of-crime exhibits, blood and other body fluids and organs.
- The Division of Forensic Medicine determines the cause of death where the Coroners Act applies. The Division also provides bereavement counselling services for relatives of victims taken to the morgue.
- *The Oliver Latham Laboratory* screens all newborn babies in New South Wales and the Australian Capital Territory to detect phenylketonuria, galactosaemia, hypothyroidism and cystic fibrosis.

TREATMENT AND PREVENTION OF INFECTIOUS DISEASES

Within the State, the (N.S.W.) Department of Health is vested with authority to make provision for the treatment and prevention of infectious diseases and the containment of "proclaimed" diseases. (The Commonwealth Government is responsible for the administration of the quarantine laws in respect of vessels, aircraft, persons, plants, animals and goods arriving from overseas ports.)

Certain infectious diseases are notifiable under the Public Health Act 1902, including anthrax, arbovirus infections, brucellosis, cholera, diphtheria, encephalitis, food poisoning, genital herpes (first diagnosis), gonorrhoea, viral hepatitis A, viral hepatitis B, hydatid disease, infantile diarrhoea (of more than 48 hours duration in an infant under two years of age), legionnaires' disease, leprosy, leptospirosis, malaria, measles, ornithosis, pertussis (whooping cough), plague, poliomyelitis, Q-fever, rabies, salmonella infections, syphilis, tetanus, trachoma, tuberculosis, typhoid and paratyphoid fever, typhus, and yellow fever. Particulars of deaths and death rates for certain of these diseases are given in the subdivision "Causes of Death" in the "Vital Statistics" Chapter.

Hospital isolation of persons suffering from infectious diseases is effected principally at Prince Henry Hospital in Sydney, but there are also isolation facilities at other hospitals throughout the State.

From April 1986, certain "proclaimed" diseases are also notifiable under the Public Health Act. Currently, proclaimed diseases comprise acquired immune deficiency syndrome (AIDS) or lymphadenopathy syndrome or the condition of having, or of having antibodies to, the AIDS virus.

Acquired Immune Deficiency Syndrome (AIDS)

The acquired immune deficiency syndrome (AIDS) is a world wide public health problem which raises many medical, social and legal issues. As at 26 March 1987, there had been 305 cases of full AIDS in New South Wales with 173 known deaths, and 442 cases with 238 deaths in Australia. The number of cases is expected to increase substantially in the next few years.

In the past three and half years, state and federal governments have mounted a major cooperative effort against AIDS. The federal government's activities have been spearheaded by the formation of two national committees:

- the *National AIDS Task Force*, which provides scientific and medical advice both to the federal government and the public; and
- the *National Advisory Committee on AIDS*, composed of representatives of community groups and experts in specific fields related to the prevention and control of this disease.

Federal initiatives include a national education campaign, funds for medical research, support for blood screening, the development and production of blood screening kits by the Commonwealth Serum Laboratories and contributions to state government programs.

The (N.S.W.) Department of Health has developed and implemented a plan for the control of AIDS and related diseases. The Ministerial Advisory Committee on AIDS Policy, announced by the N.S.W. Government in April 1986, advises the Minister for Health on policy matters regarding the containment of the disease in this State.

AIDS, AIDS related complex and lymphadenopathy syndrome were proclaimed notifiable diseases under the State Public Health Act in August 1984. This was revoked in April 1986 when AIDS and AIDS-related diseases or conditions were declared to be "proclaimed" diseases (see above).

All blood donors are required to make statutory declarations that they do not belong to population groups known to have high disease prevalence. Blood donors are also screened for potential AIDS carriers by tests designed to detect the presence of AIDS antibodies. No new cases of AIDS attributable to transfusions of blood or blood products have been reported since these measures were adopted in May 1985.

Guidelines to minimise accidental disease transmission in laboratories, hospitals and dental surgeries have been prepared and circulated. Programs designed to educate the general public and at-risk groups are being conducted.

Forty-two hospital beds have been dedicated to the care of AIDS patients in N.S.W. Inpatient services for AIDS patients are available at eight major metropolitan hospitals. Outpatient services are available at the Albion Street Clinic in Sydney, at metropolitan teaching hospitals and Port Kembla Hospital.

Testing for the presence of AIDS antibodies is conducted at laboratories attached to eight major metropolitan hospitals and the laboratories of the Red Cross Blood Transfusion Service. The laboratories attached to St. Vincent's Hospital and the Institute of Clinical Pathology and Medical Research have been appointed State reference laboratories. Laboratory services are being expanded to cater for expected increases in the demand for tests.

Sexually Transmitted Diseases

The Venereal Diseases Act 1918, prescribes that all persons suffering from venereal diseases (sexually transmitted diseases) must place themselves under the treatment of a medical practitioner and must remain under treatment until cured. Treatment by unqualified persons is prohibited. Free treatment is available at the Albion Street Clinic in Sydney, the metropolitan teaching hospitals and large hospitals elsewhere. Medical practitioners are required to notify the (N.S.W.) Department of Health of all cases of such diseases. (Code numbers may be used in lieu of patients' names.) Persons suspected of suffering from a sexually transmitted disease may be required to be examined by a medical practitioner.

Tuberculosis

The (N.S.W.) Department of Health, through its eleven regional offices, co-ordinates measures for the detection, cure, and prevention of this disease; regulates admission of patients to approved hospitals; investigates conditions of homes and places of employment of tubercular persons; arranges for the treatment of patients not in approved hospitals and for the examination of contacts; and also undertakes publicity about tuberculosis.

Facilities for X-ray examination of the lungs and skin-testing to detect the disease are available at chest clinics attached to several metropolitan and country hospitals. The Public Health Act empowers, in certain circumstances, investigation of suspected tubercular persons and the compulsory hospitalisation of persons suffering from active tuberculosis.

IMMUNISATION CAMPAIGNS

Poliomyelitis

An anti-poliomyelitis campaign is conducted in Australia by the State and Commonwealth Governments. Poliovirus vaccine for use in the campaign is supplied free by the Commonwealth Government, the States accepting responsibility for the distribution of the vaccine.

The (N.S.W.) Department of Health directs the campaign in New South Wales, and the State undertakes to meet the net costs incurred in vaccinating babies and other children under 15 years of age. Vaccine is made available free to medical practitioners for use in their private practice.

Diphtheria, Tetanus and Whooping Cough

Triple antigen vaccine is issued free by the Commonwealth Government to local government authorities which run regular clinics for the immunisation of babies and other children against these diseases. The vaccine is also available on prescription for administration by private general practitioners.

Rubella

The (N.S.W.) Department of Health conducts a rubella (German measles) immunisation campaign for girls aged twelve to fourteen years. The vaccine is provided free by the Commonwealth Government and is administered, with parental consent, in schools by medical staff from the Department. The vaccine is also available to women of child-bearing age.

Measles and Mumps

The Commonwealth Government supplies a combined measles and mumps vaccine free, through the (N.S.W.) Department of Health, to local government authorities and private doctors. Immunisation is recommended to be carried out at the age of 15 months, but may be given to 12 month old children in the event of an outbreak of the diseases.

HEALTH TRANSPORT AND EMERGENCY CARE SERVICES

The *New South Wales Ambulance Service,* which is the responsibility of the (N.S.W.) Department of Health, provides ambulance services for sick and injured persons throughout New South Wales.

The role of the New South Wales Ambulance Service is restricted to:

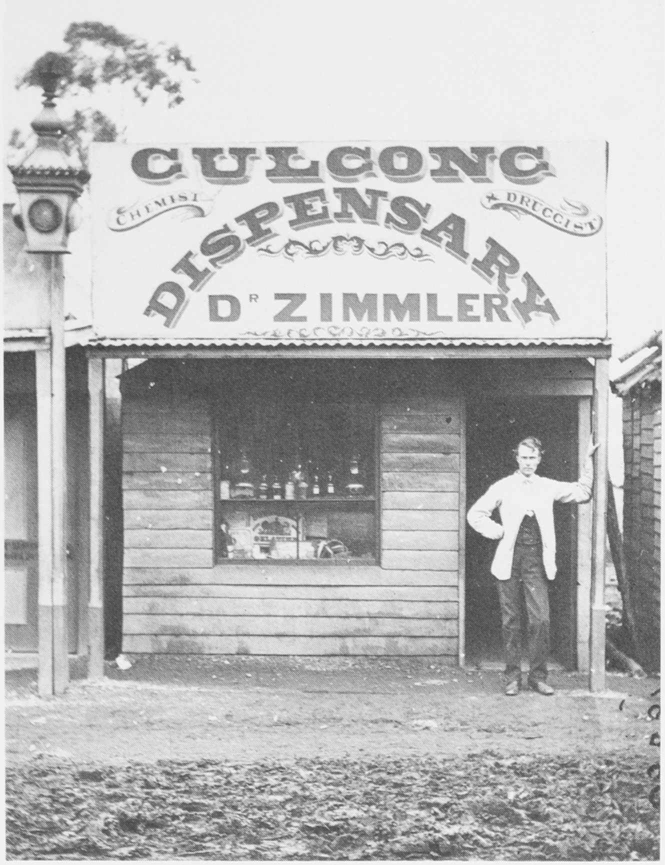
(a) providing emergency services; and
(b) transferring patients in non-emergency situations to and from appropriate health services, where the patient's condition prohibits the use of alternative means of transport.

In New South Wales, ambulance services (both road and air) are provided free to all Social Security pensioners, sickness and supporting parent beneficiaries and recipients of Veterans' Affairs service pension. This concession also applies to low income earners and the unemployed, who are holders of a health care card. Those not eligible for free service may secure ambulance coverage by having basic hospital insurance with a registered health insurance fund or by being members of the voluntary State Ambulance Insurance Plan. In other cases, patients are charged $102.10 for the first sixteen kilometres of road or air transport plus $2.61 per kilometre thereafter, to a maximum of $2,448.

The Ambulance Service is financed by a levy on health insurance funds, from income from the State Ambulance Insurance Plan, from fees received from patients transported and by State Government subsidy. The levy is currently set at 80 cents weekly for a family and 40 cents weekly for a single person.

There were 530,000 cases transported in 1985-86 and the distance travelled was 14 million kilometres.

The *Rural Aerial Health Service* provides specialist health services to remote country areas of the State. Community health teams are flown to these areas to provide services similar to those available in more accessible areas.

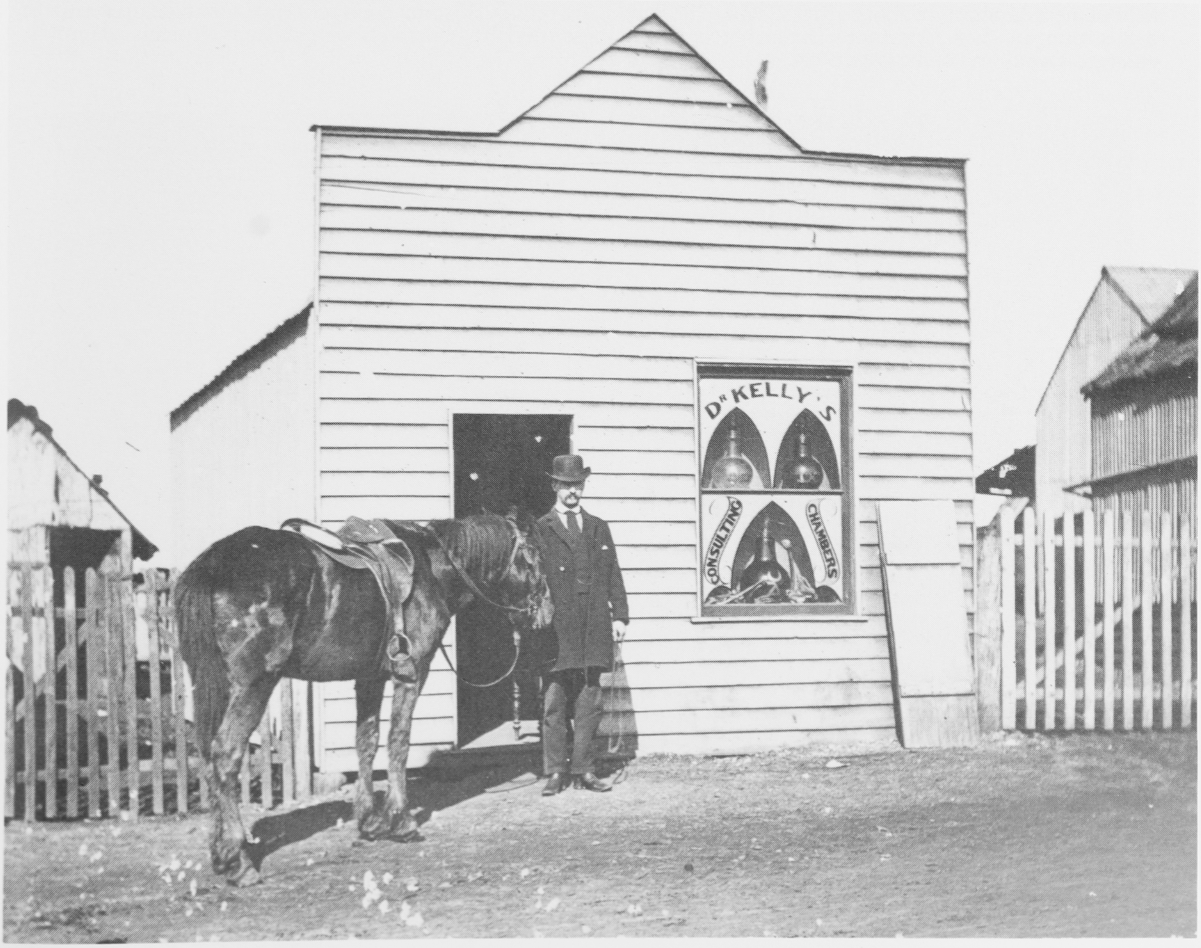


Right: Dr Zimmler, from Hanover, was at one time Mayor of Gulgong, where he conducted his dispensary from 1871 until his death in 1891. In the photo his dispenser, Mr White, stands in the doorway. During this period pharmacists would have prepared many of their own pills, mixtures, lotions and plasters. Dr Zimmler was well known for his cherry balsam. Shops such as this would have supplied products for medical purposes, as well as for household and agricultural uses such as preserving, tanning and vermin control. This photograph, from the Holtermann Collection, is one of the Gulgong series of photographic designs which currently feature on the Australian $10 note.

Mitchell Library, State Library of New South Wales

Below: Dr Kelly outside his consulting rooms at Gulgong during the early 1870s. Dr Kelly was one of about six doctors on the goldfields. His position would have entailed visiting nearby towns such as Home Rule to see patients. Poor sanitation and housing and inadequate nutrition and clothing led to the spread of typhoid and tuberculosis, while pneumonia and venereal diseases were also common. In addition, there were mining accidents, falls from horses, problems in childbirth and the victims of crimes to be treated. Photograph also from the Holtermann Collection.

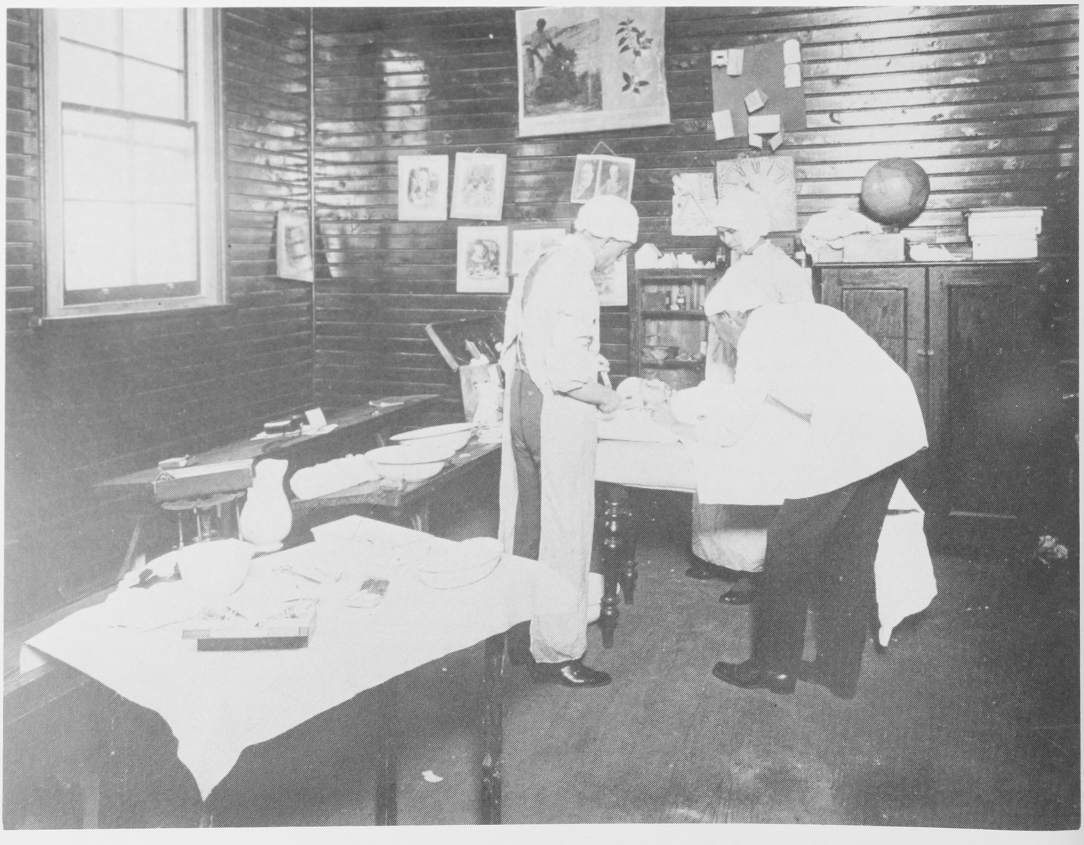
Mitchell Library, State Library of New South Wales



Archives Office of N.S.W.

In 1913-14, School Travelling Hospitals and Clinics were established in order to bring free health services to children throughout N.S.W. The teams of medical officers and nurses inspected school buildings, lectured teachers, students and parents, tested for and treated eye defects and various diseases, performed minor operations and, from 1915, undertook dental work. *Above:* The School Travelling Ophthalmic Clinic at Budgee Budgee Public School, near Mudgee, in about 1915. *Below:* The School Travelling Hospital conducting an adenoids operation in a classroom in 1914. Common ailments recorded by these travelling hospitals were defective tonsils, adenoids, enlarged glands and defective vision.

Archives Office of N.S.W.

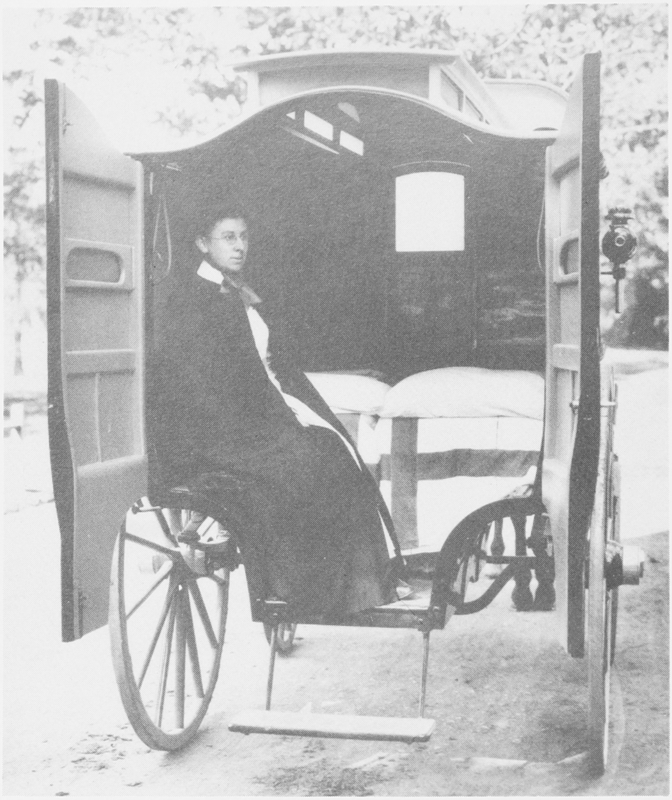


Department of Education

Archives Office of N.S.W.

Since the first half of the twentieth century, health services have been directed towards preventative medicine in which good public, family and personal health practices have been promoted. Adequate nutrition, immunisation and maternal and child care are some of the measures that have been supported by public health authorities. *Above left:* Milk distribution, Blackfriars Public School, 1923. In 1922 a few companies started to supply free milk to infant schools in the poorer parts of Sydney. A government funded free milk scheme for all pupils in N.S.W. operated between 1941 and 1973. *Above right:* An immunisation program, School Travelling Hospital, 1914. Of the 94,000 children inspected in 1914, 35 per cent had been vaccinated. The highest proportion was in the metropolitan area where there had been a smallpox epidemic in 1913. Vaccination against typhoid and the plague were available by about 1910. *Below:* Baby Health Clinic, 1914. The first government funded baby clinics were established in Alexandria and Newtown, populous inner suburbs of Sydney. These clinics continued the work previously conducted by a private organisation, the Alice Rawson School for Mothers. In addition to monitoring babies' progress, mothers were instructed on basic personal and home hygiene and were advised on the care and development of their children.

Archives Office of N.S.W.

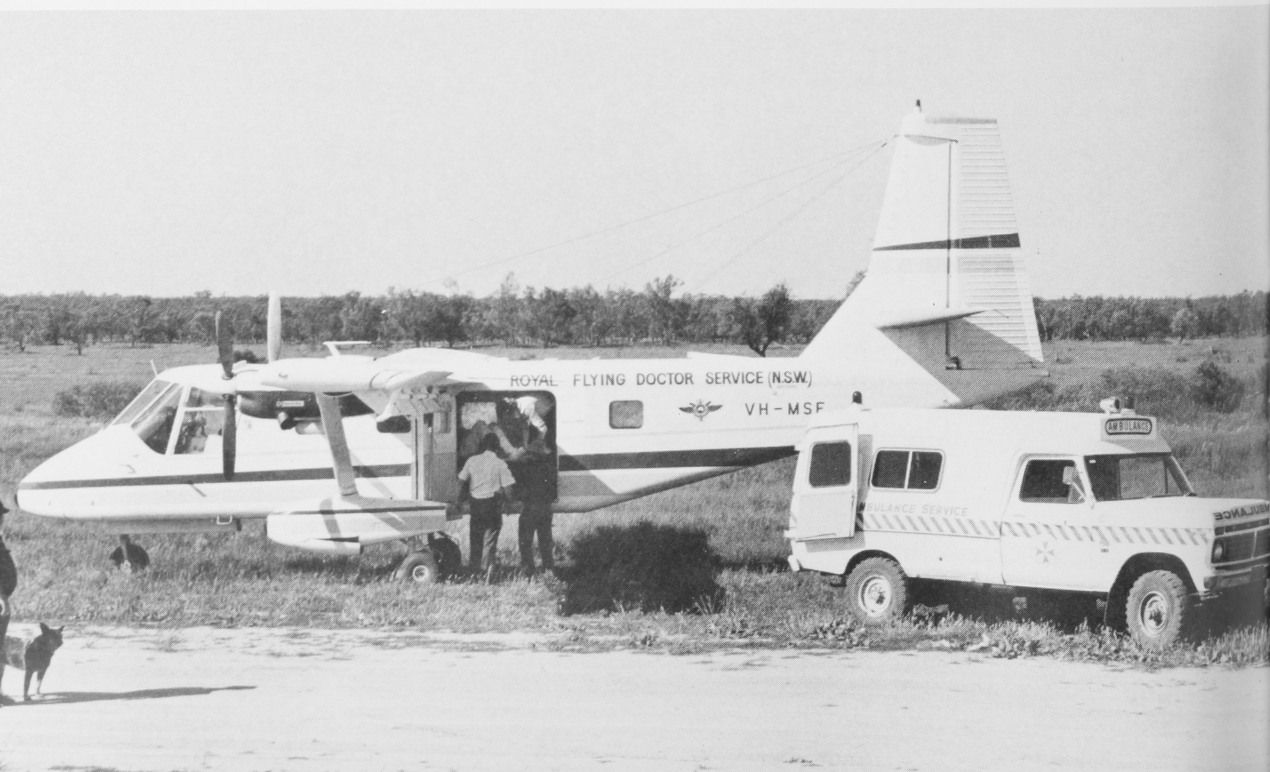


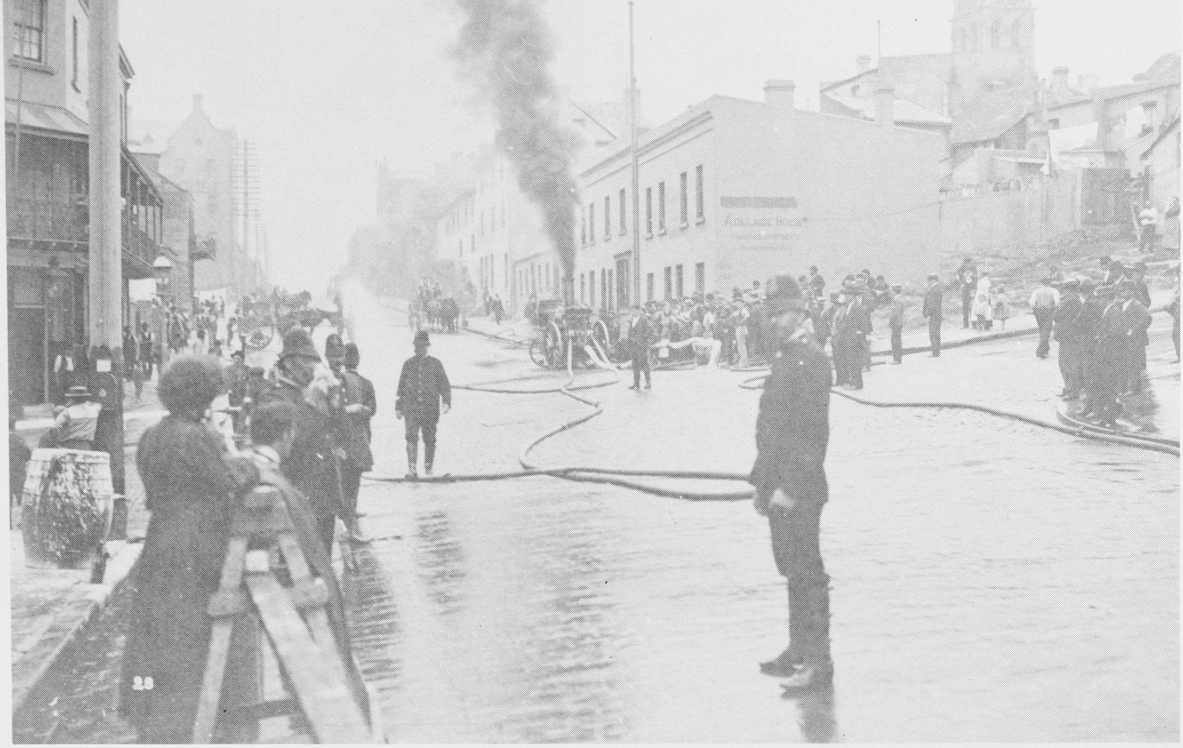
The Coast Hospital, which was established in 1881 in an isolated location at Little Bay, was Sydney's principal infectious diseases hospital. In 1934 it became the Prince Henry Hospital. In its early years it conducted its own ambulance service, photo above. Victims of the bubonic plague in 1900 were taken to "the Coast" in an ambulance of this type. The hospital owned 6 ambulances, each with two horses, and employed 4 drivers. A nurse with a cane basket of drugs and dressings accompanied the driver.

Archives Office of N.S.W.

A patient is loaded onto a Nomad aircraft operated by the Royal Flying Doctor Service at Ivanhoe in western N.S.W. in 1981. The Service is a non-profit organisation which provides medical services to remote areas of the State. Outback homesteads, mining sites and other isolated sites have a 24-hour radio link with the Service. A radio message can ask for assistance and within a couple of hours a doctor can be sent to a patient or a patient moved to a hospital by air. Alternatively, a doctor may diagnose a condition over the radio and prescribe treatment from the standard medical kit of over 100 drugs which each outpost holds. Doctors and nurses also make routine trips to outback townships to conduct clinics.

Promotion Australia



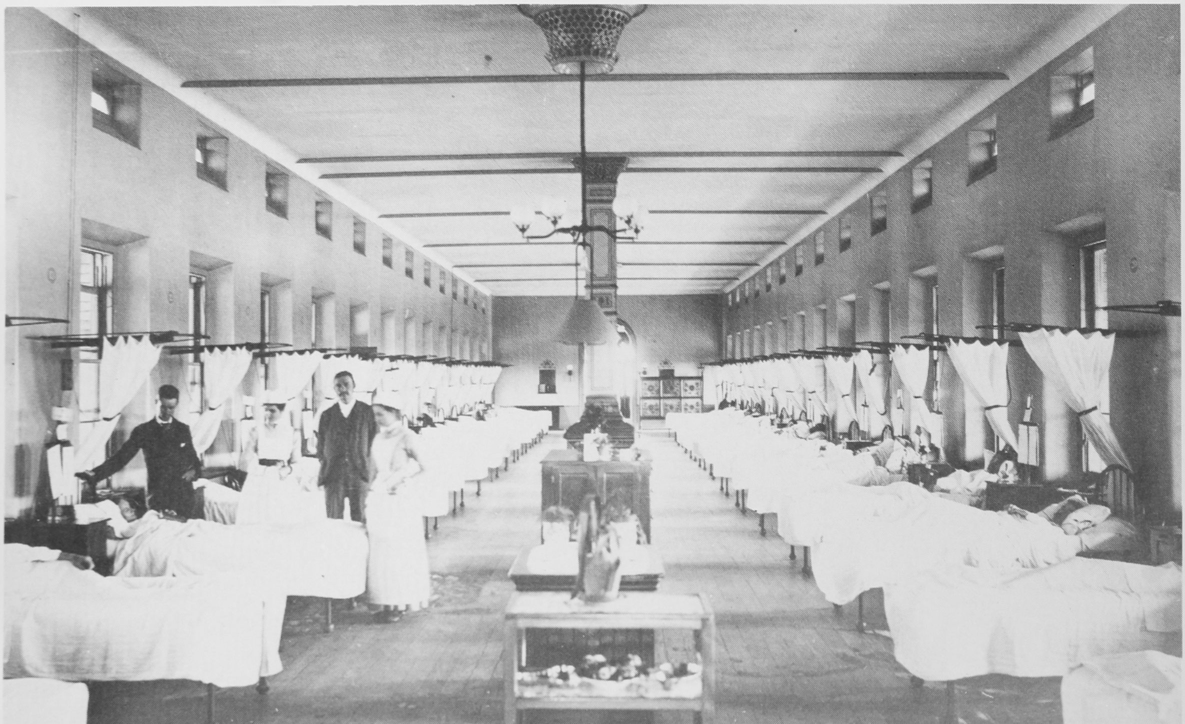


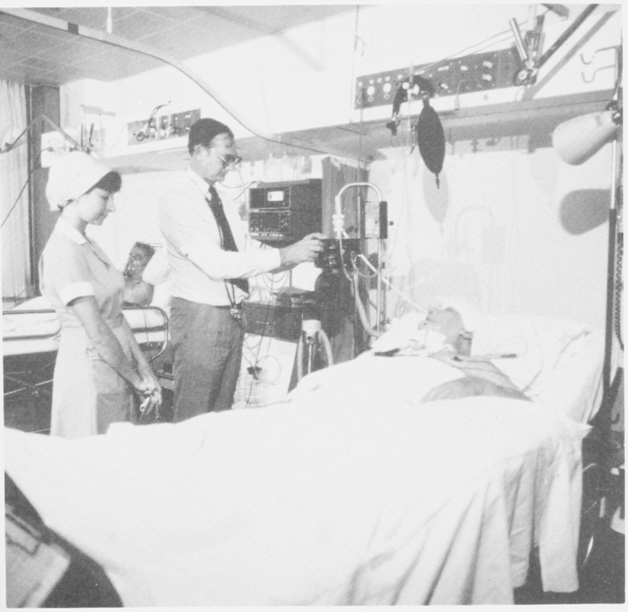
Archives Office of N.S.W.

The first edition of The Official Year Book of New South Wales, in commenting on the comparatively high death rates in Sydney until about 1900, stated that "the conclusion is inevitable, that no small part of the mortality of Sydney and its suburbs arose primarily or indirectly from diseases which sanitary precautions might have averted". The bubonic plague was introduced to Sydney through overseas shipping wharves at Darling Harbour and quickly spread through the unsanitary inner city areas in the first 8 months of 1900. Of the 303 people who caught it, 103 died. Rat catchers were employed and infected streets, particularly around The Rocks area, were quarantined and cleansed (photo above). Rubbish was cleared away and buildings limewashed or even demolished.

Men's ward, Prince Alfred Hospital, 1887. The hospital was opened in 1882, which coincided with the establishment of a medical school at Sydney University which adjoins its site. The hospital was housed in new buildings with sewerage and drainage facilities, important features in a period when typhoid was a common disease. At that time pain was relieved, temperatures reduced and comfort offered to patients by means of baths, foments, poultices, stupes and cantharides plasters.

N.S.W. Government Printer





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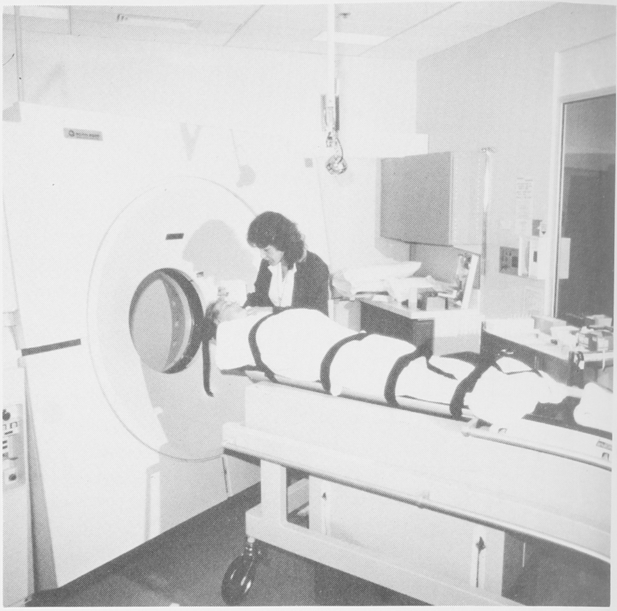
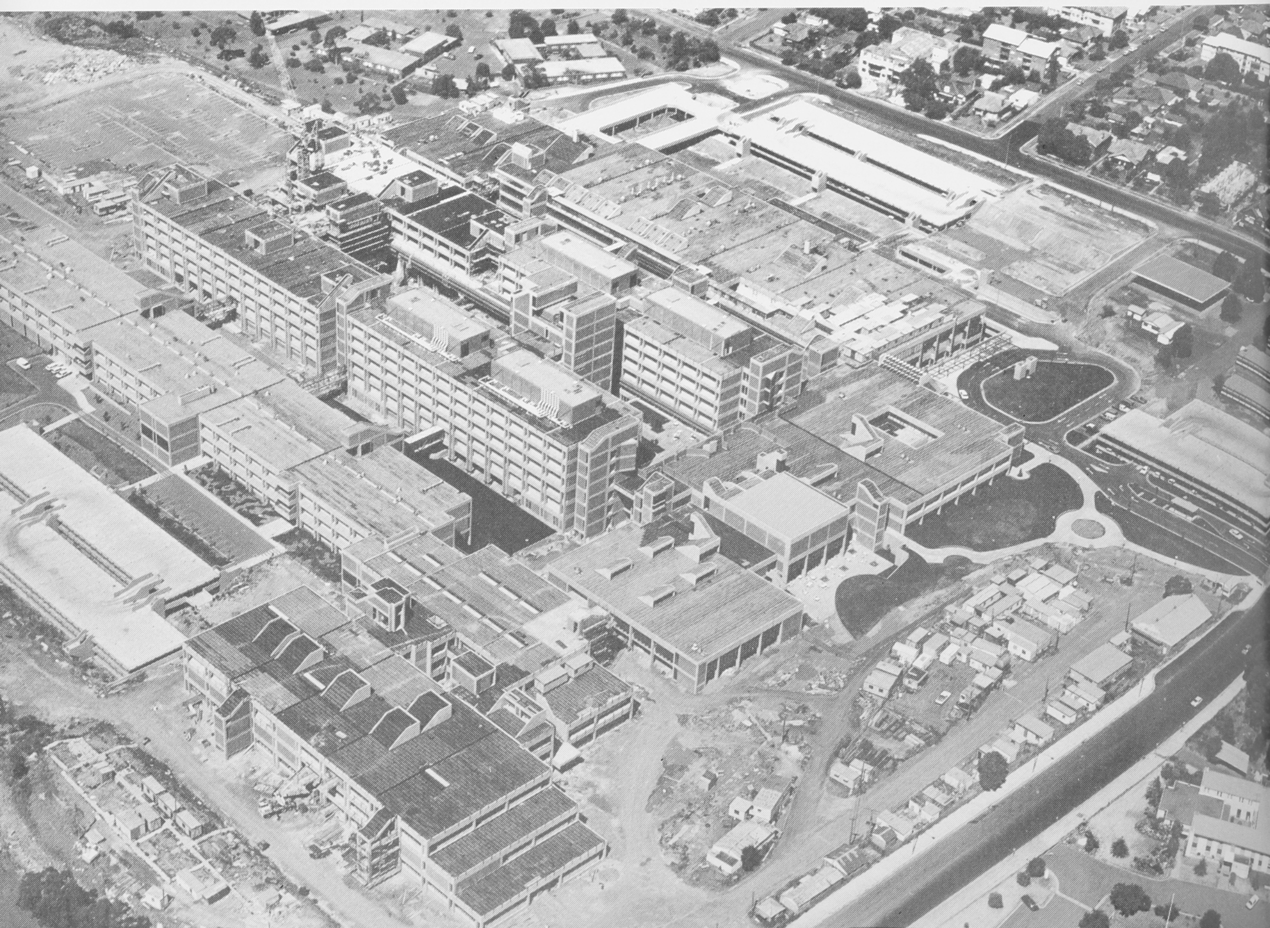


Promotion Australia

Above left: Intensive care unit, Royal North Shore Hospital, Sydney, 1982. Units such as these form an integral part of hospital care, providing sophisticated electronic equipment and nursing based life support and/or monitoring systems. *Above right:* Cerebral tumour scan, Westmead Hospital, 1982. Medical imaging, including diagnostic radiology, nuclear medicine and ultrasound are some of the diagnostic tools available at Westmead and other major N.S.W. hospitals. *Below:* Westmead Hospital under construction. In the mid-1970's, the former Parramatta Showground, a site of 42 hectares, was chosen for the location of a new specialised referral hospital for the western metropolitan area of Sydney. Opened in 1978 and containing over 1,000 beds, it offers clinical training to medical and dental students of the University of Sydney and to paramedical and nursing students from nearby colleges.

Department of Public Works



DISASTER PLANNING

A State Disaster Medical Program has been introduced by the (N.S.W.) Health Department. Disaster planning involves close relationships between Departmental services (including the ambulance services), police, State Emergency Services, fire brigades, hospitals, medical practitioners, the Blood Transfusion Service and others.

HEALTH EDUCATION PROGRAMS

The (N.S.W.) Department of Health promotes public awareness of health improvement and the benefits of a healthy lifestyle, mainly through health education programs aimed at target populations who are regarded as at risk and who would benefit from preventive health programs. The education programs involve the use of audio-visual media and the provision of advisory services to teachers, students and numerous community bodies. There are programs on nutrition, child immunisation, parent education, child development and environmental and occupational health education. The "Why Smoke" program has been run in all government schools in the metropolitan area and is expanding into country and non-government schools.

A wide range of free pamphlets and posters is distributed throughout the State. Health education texts are available in many languages.

OTHER COMMONWEALTH HEALTH BENEFITS

PHARMACEUTICAL BENEFITS SCHEME

Under the Pharmaceutical Benefits Scheme, assistance is provided towards the cost of a comprehensive range of drugs and medicines to persons receiving treatment from a medical practitioner. The scheme also allows dentists, who are approved as participating dental practitioners, to prescribe a limited range of drugs for dental treatment of their patients. The drugs and medicines are supplied by an approved chemist upon presentation of a prescription from the patient's medical or dental practitioner or by an approved hospital for patients receiving treatment at the hospital.

Under arrangements which commenced on 1 November 1986, pensioners receive items on the pharmaceutical benefits list free (except for a few items where a special patient contribution applies), general users pay the retail price for benefit items up to $10 and non-pensioner concessional users pay the retail price up to $2.50. Where the price exceeds the above, the government pays the balance to the pharmacist.

In 1985-86, 25 million pensioner benefit prescriptions and 21 million other benefit prescriptions were processed under the scheme in New South Wales. Commonwealth Government payments on pensioner benefit prescriptions amounted to $165m. For other benefit prescriptions, the Commonwealth Government paid $71m, while patients contributed $88m.

AIDS AND APPLIANCES

The Commonwealth Government meets the cost of supplying the following aids and appliances (free of charge): hearing aids and batteries to children and eligible pensioners and their dependants, artificial limbs to civilians, and stoma appliances to members of the community who need them. The National Acoustic Laboratories conduct hearing tests and service and supply the hearing aids, and stoma associations supply the stoma appliances. The costs incurred in supplying home dialysis equipment to all persons requiring it are met jointly by the Commonwealth and State Governments.

The Commonwealth Government, under the Program of Aids for Disabled People, provides financial assistance to enable people with disabilities, of a permanent or indefinite duration, to live more independently at home. Under this program, the Commonwealth Government meets the full cost of certain aids to daily living, including wheelchairs, walking aids and orthopaedic devices, and provides assistance for basic home modifications (ramps, rails, grips, etc.).

OTHER HEALTH SERVICES

Central Cancer Registry

The Central Cancer Registry within the (N.S.W.) Department of Health is the central source of information for follow-up of cancer patients and a central repository of data from which specific studies can be mounted. The objective of the registry is to define the public health problem of cancer in the State by preparing data collected from hospitals and radiotherapy departments.

Drug and Alcohol Authority

The Drug and Alcohol Authority of New South Wales was established as a statutory authority under the provisions of the Drug and Alcohol Authority Act 1980. The main functions of the Authority, in respect of drug and alcohol related problems and services in New South Wales, are to formulate and promote programs for the provision of comprehensive and co-ordinated services; monitor and evaluate these services; undertake and promote research; develop educational or training programs; and provide grants to public authorities, organisations and persons to assist with the provision of these services. In 1985-86, the Authority received $9.4m from the Commonwealth and State Governments, and provided grants totalling $8.4m for over 100 drug and alcohol projects in New South Wales.

Care of the Deaf and Blind

The care of deaf, blind, and deaf-blind children, and the care and education of multi-handicapped blind children and young adults is undertaken by the *Royal New South Wales Institute for Deaf and Blind Children* (maintained partly by public subscription and partly by Commonwealth and State Government subsidies). Supportive services include pre-school parent counselling, welfare and psychological services, an activity therapy centre and computerised braille production for all ages.

The *Royal Blind Society* (maintained largely by public subscription and partly by Commonwealth and State Government subsidies) provides home-based and training centre rehabilitation, assessment, counselling and resource services for visually impaired and blind people of all ages and a home guidance program for parents of visually handicapped children. Other services include braille, a talking-book library, magazines on cassettes, a sheltered workshop, and a nursing home.

Services for Other Physically Handicapped Persons

The New South Wales Society for Crippled Children provides services for children and young adults with physical disabilities. The Society provides a range of accommodation services in metropolitan and country areas and also provides registered clients with some orthopaedic aids and appliances.

The Society is supported principally by public donations, by subsidies from the Commonwealth government and by assistance from the (N.S.W.) Department of Health.

The Spastic Centre of New South Wales cares for babies, older children, and adults with a cerebral palsy condition. It operates two nursing homes, 11 day-treatment centres, a special school, a hydrotherapy pool, three training cottages and a large sheltered employment workshop in Sydney. A treatment centre is also provided in Newcastle. The Spastic Centre assists parents of spastic children through a program conducted at many baby health centres in the Sydney Metropolitan Area. The Centre is partly maintained by public donations and partly by Commonwealth Government funding.

Details of government assistance for handicapped persons are outlined in the "Social Welfare" chapter.

Royal Flying Doctor Service

The Royal Flying Doctor Service is a non-profit organisation providing medical services in remote areas of Australia. The Service is financed mostly from donations and government contributions. In 1985-86, the Commonwealth Government paid grants of $6.4m to the Service.

St. John Ambulance Brigade

The St. John Ambulance Brigade is a voluntary organisation that provides first aid services at sports grounds, places of entertainment, and public gatherings. Members are trained in modern first aid techniques including resuscitation.

The Australian Red Cross Society New South Wales Division

The Australian Red Cross Society conducts the Blood Transfusion Service in New South Wales and provides a wide variety of voluntary community services through nearly 500 branches throughout the State. Operating costs of the Blood Transfusion Service are financed jointly by the State Government (60 per cent), the Australian Red Cross Society (the lower of 5 per cent of operating costs or 10 per cent of its previous year's income from donations) and the Commonwealth Government (the balance). Approved capital expenditure is shared equally between the Commonwealth and State Governments.

The blood products are supplied, free of charge, to hospitals and approved pathologists.

PRIVATE HEALTH INSURANCE

Private health funds registered under the *National Health Act 1953* offer cover for *(a)* treatment as a private patient in a public hospital, *(b)* private hospital accommodation and *(c)* ancillary health services.

Registered health funds offer supplementary benefits in respect of charges for single room accommodation in public hospitals and for higher cost accommodation in private hospitals to complement the basic private fund benefits.

Ancillary benefits offered by the health funds cover services such as theatre fees, labour ward charges, dentistry, physiotherapy, home nursing, chiropractic and chiropody as well as costs of aids and appliances such as artificial limbs and wheelchairs.

Registered health funds may also offer medical and hospital benefits to cover short term visitors to Australia not covered by Medicare.

From 1 September 1985, all organisations conducting health insurance business must be registered under the National Health Act.

HOSPITAL AND NURSING HOME IN-PATIENT STATISTICS

IN-PATIENT SEPARATIONS

The statistics given in this sub-section relate to separations (discharges, transfers and deaths) of in-patients from all public and private hospitals and nursing homes in New South Wales in 1985. State hospitals and community patients from repatriation hospitals are included.

An *in-patient* is any person who has been admitted by the institution and who may be charged a fee for accommodation and/or services during the period of care, irrespective of the length of stay. For the purpose of these statistics, an in-patient can be a person who has been admitted for observation, care, diagnosis or treatment (including a person who has been granted approved leave of absence for short periods from the institution). However, a newborn baby who experiences no morbidity and leaves hospital with its mother or a mother accompanying a sick child is not regarded as an in-patient.

A *separation* is defined as the discharge from an institution, transfer to another institution, or death, of an in-patient. A separation occurs irrespective of the time interval between a discharge or transfer and a later admission. It is important to note that the number of separations relates to unique episodes in institutions and *does not indicate the number of individuals* who have been separated from institutions during the year.

Length of stay is the difference between the date of admission and the date of separation. However, where an in-patient is admitted and separated on the same day, the length of stay is taken as one day in the calculation of the number of patient-years and average length of stay.

Average length of stay is calculated by summing the lengths of stay of the relevant separations and dividing by the number of separations in that category.

A *principal diagnosis* is the disease, condition or injury which best accounts for the period of in-patient care. If no firm diagnosis has been made, the manifestation is taken as the principal diagnosis.

A *procedure* is an operation or other procedure which may be performed in an operating theatre or may carry an operative or therapeutic risk or may require the use of highly specialised facilities or equipment. The normal delivery of an obstetric patient is included.

The *principal procedure* is the main operation or other procedure performed during the period of hospitalisation.

In-patient separations from public and private hospitals in 1985, classified by principal diagnosis of the patient, are shown in the following table. Of the total of 1,071,670 hospital separations in 1985, 784,585 (73 per cent) were from public hospitals while 287,085 (27 per cent) were from private hospitals.

Hospital Separations and Related Duration in Hospital Classified by Principal Diagnosis of Patient *(a)*, N.S.W., 1985

Principal diagnosis	*International code number*	*Number of in-patient separations*	*Number of patient-years*	*Average Length of stay (days)*
Intestinal infectious diseases	001-009	2,861	29	3.8
Tuberculosis	010-018	307	18	21.7
Meningococcal infection	036	7	—	8.9
Measles	055	127	1	3.7
Malaria	084	83	1	4.0
Venereal diseases	090-099	233	4	6.2
Malignant neoplasms	140-208	47,300	1,526	11.8
Malignant neoplasm of stomach	151	1,056	42	14.6
Malignant neoplasm of colon	153	2,458	127	17.0
Malignant neoplasm of rectum, rectosigmoid junction and anus	154	1,926	96	18.2
Malignant neoplasm of trachea, bronchus and lung	162	4,688	171	13.3
Malignant neoplasm of female breast	174	3,864	146	13.8
Malignant neoplasm of cervix uteri	180	1,006	31	11.2
Leukaemia	204-208	2,083	60	10.5
Benign neoplasm of uterus	218,219	2,595	50	7.0
Diseases of thyroid gland	240-246	1,436	30	7.6
Diabetes mellitus	250	5,539	182	12.0
Nutritional deficiencies	260-269	294	13	15.5
Mental disorders	290-319	45,628	7,561	60.5
Multiple sclerosis	340	372	94	92.2
Diseases of eye and adnexa	360-379	21,011	268	4.7
Diseases of ear and mastoid process	380-389	12,574	81	2.3
Diseases of the circulatory system	390-459	92,643	3,841	15.1
Chronic rheumatic heart disease	393-398	638	20	11.3
Hypertensive disease	401-405	4,017	115	10.5
Acute myocardial infarction	410	10,448	370	12.9
Cerebrovascular disease	430-438	14,561	1,133	28.4
Varicose veins of lower extremities	454	4,886	137	10.3
Chronic diseases of tonsils and adenoids	474	7,357	51	2.5
Pneumonia	480-486	8,278	262	11.6
Influenza	487	1,742	30	6.3
Bronchitis, emphysema and asthma	490-493	20,718	288	5.1
Diseases of teeth and supporting structures	520-525	12,100	53	1.6
Ulcer of stomach and duodenum	531-533	10,438	139	4.9
Appendicitis	540-543	10,512	144	5.0
Hernia of abdominal cavity	550-553	15,644	237	5.5
Diseases of urinary system	580-599	26,972	441	6.0
Hyperplasia of prostate	600	6,254	129	7.5
Salpingitis and oophoritis	614.0-614.2	514	7	4.8
Uterovaginal prolapse	618	3,251	85	9.6
Abortion	630-639	18,510	91	1.8
Direct obstetric conditions	640-646 651,676	69,566	1,180	6.2
Normal delivery	650	27,651	408	5.4
Diseases of the musculoskeletal system and connective tissue	710-739	63,433	1,322	7.6
Congenital anomalies	740-759	11,196	302	9.8
All other diseases and conditions	Residual	326,982	4,797	5.4
Injury and poisoning	800-999	102,291	2,094	7.5
Fractures	800-829	37,698	1,203	11.7
Intracranial and internal injuries, including nerves	850-869 950-957	11,146	148	4.8
Burns	940-949	2,238	62	10.1
Poisonings and toxic effects	960-989	9,088	84	3.4
Other reasons for contact with health services	V01-V82	95,251	1,009	3.9
Total, all diagnoses		**1,071,670**	**26,763**	**9.1**

(a) Classified in accordance with the International Classification of Diseases, Ninth Revision (1975), (Morbidity List).

In-patient separations from nursing homes in 1985, classified by principal diagnosis of the patient, are shown in the following table.

Private Nursing Home Separations and Related Duration in Nursing Home Classified by Principal Diagnosis of Patient *(a)*, N.S.W., 1985

Principal diagnosis	*International code number*	*Number of in-patient separations*	*Number of patient-years*	*Average length of stay (years)*
Intestinal infectious diseases	001-009	—	—	—
Tuberculosis	010-018	3	20	6.7
Meningococcal infection	036	—	—	—
Measles	055	—	—	—
Malaria	084	—	—	—
Venereal diseases	090-099	1	n.p.	n.p.
Malignant neoplasms	140-208	968	390	0.4
Malignant neoplasm of stomach	151	27	8	0.3
Malignant neoplasm of colon	153	68	28	0.4
Malignant neoplasm of rectum, rectosigmoid junction and anus	154	42	27	0.6
Malignant neoplasm of trachea, bronchus and lung	162	139	24	0.2
Malignant neoplasm of female breast	174	85	30	0.4
Malignant neoplasm of cervix uteri	180	14	11	0.8
Leukaemia	204-208	34	10	0.3
Benign neoplasm of uterus	218,219	—	—	—
Diseases of thyroid gland	240-246	36	38	1.1
Diabetes mellitus	250	623	733	1.2
Nutritional deficiencies	260-269	28	36	1.3
Mental disorders	290-319	5,370	5,890	1.1
Multiple sclerosis	340	98	154	1.6
Diseases of eye and adnexa	360-379	388	424	1.1
Diseases of ear and mastoid process	380-389	155	63	0.4
Diseases of the circulatory system	390-459	6,794	9,795	1.4
Chronic rheumatic heart disease	393-398	3	3	0.9
Hypertensive disease	401-405	262	349	1.3
Acute myocardial infarction	410	105	205	2.0
Cerebrovascular disease	430-438	3,760	5,742	1.5
Varicose veins of lower extremities	454	20	20	1.0
Chronic diseases of tonsils and adenoids	474	3	—	0.1
Pneumonia	480-486	130	162	1.2
Influenza	487	4	7	1.8
Bronchitis, emphysema and asthma	490-493	205	262	1.3
Diseases of teeth and supporting structures	520-525	270	13	0.1
Ulcer of stomach and duodenum	531-533	70	45	0.6
Appendicitis	540-543	2	—	—
Hernia of abdominal cavity	550-553	31	51	1.6
Diseases of urinary system	580-599	227	135	0.6
Hyperplasia of prostate	600	14	14	1.0
Salpingitis and oophoritis	614.0-614.2	—	—	—
Uterovaginal prolapse	618	2	1	0.5
Abortion	630-639	—	—	—
Direct obstetric conditions	640-646 651-676	—	—	—
Normal delivery	650	—	—	—
Diseases of the musculoskeletal system and connective tissue	710-739	1,775	2,334	1.3
Congenital anomalies	740-759	223	301	1.4
All other diseases and conditions	Residual	4,803	4,466	1.1
Injury and poisoning	800-999	784	360	0.5
Fractures	800-829	646	302	0.5
Intracranial and internal injuries, including nerves	850-869 950-957	40	18	0.5
Burns	940-949	7	2	0.2
Poisonings and toxic effects	960-989	4	5	1.1
Other reasons for contact with health services	V01-V82	2,230	1,473	0.7
Total, all diagnoses		**25,236**	**27,167**	**1.1**

(a) Includes both public and private nursing homes. *(b)* Classified in accordance with the International Classification of Diseases, Ninth Revision (1975), (Morbidity List).

The following table shows the principal procedures performed on in-patients separated from hospitals in New South Wales in 1985. Procedures were performed on 377,203 patients separated from public hospitals (48 per cent of these patients), and on 245,969 patients separated from private hospitals (86 per cent of these patients).

Hospital Separations of Patients on whom Procedures were Performed Classified by Principal Procedure *(a)*, N.S.W., 1985

Principal procedure performed (grouped)	*International code number*	*Number of separations*		
		Males	*Females*	*Persons*
Operations performed on —				
Nervous system	5-01 to 5-05	5,403	5,718	11,121
Endocrine system	5-06,5-07	429	1,441	1,870
Eye	5-08 to 5-16	9,504	11,188	20,692
Ear	5-18 to 5-20	6,203	5,135	11,338
Nose, mouth and pharynx	5-21 to 5-29	15,374	17,130	32,504
Respiratory system	5-30 to 5-34	1,262	723	1,985
Cardiovascular system	5-35 to 5-39	7,146	5,560	12,706
Hemic and lymphatic systems	5-40 to 5-41	902	792	1,694
Digestive system	5-42 to 5-54	30,725	26,294	57,019
Urinary tract	5-55 to 5-59	7,357	7,081	14,438
Male genital organs	5-60 to 5-64	15,857	3	15,860
Female genital organs	5-65 to 5-71	—	70,694	70,694
Obstetric operations *(b)*	5-72 to 5-75	—	44,640	44,640
Operations performed on —				
Musculoskeletal system	5-76 to 5-85	28,472	20,333	48,805
Breast	5-86 to 5-87	393	8,384	8,777
Skin and subcutaneous tissue	5-88 to 5-90	20,366	18,212	38,578
Disruption of tissue	5-91 to 5-97	2,860	3,493	6,353
Optional surgery	5-98	5,289	7,523	12,812
Ill-defined operations	5-99	7	5	12
All other procedures *(c)*	Residual	86,312	124,962	211,274
Total, all procedures		**243,861**	**379,311**	**623,172**

(a) Classified in accordance with the International Classification of Procedures in Medicine (1978). *(b)* Excludes normal delivery. *(c)* Includes normal delivery, correction of fracture, dislocation or deformity, dialysis and radiography.

CENSUS OF MENTAL HEALTH, DEVELOPMENTAL DISABILITY AND LONG-STAY IN-PATIENTS IN HOSPITALS AND NURSING HOMES

A census of mental health, developmental disability and long-stay in-patients in hospitals and nursing homes in New South Wales is held periodically, the last being in September 1984. Data from that census was released in the ABS publication *Census of Mental Health and Long-stay In-patients in Hospitals and Nursing Homes, New South Wales, 1984* (Cat. No. 4310.1).

FURTHER REFERENCES

A.B.S. Publications (N.S.W. Office): *Hospital and Nursing Home In-patients, New South Wales,* (Catalogue No. 4306.1); *Census of Mental Health and Long-stay In-patients in Hospitals and Nursing Homes, New South Wales* (4310.1); *Exercise, and Tobacco and Alcohol Consumption Patterns, New South Wales* (4311.1); *Children's Dental Health, New South Wales* (4350.1); *Children's Immunisation Survey, New South Wales* (4352.1). **A.B.S. Publications (Central Office):** *Apparent Consumption of Foodstuffs and Nutrients, Australia* (Catalogue No. 4306.0); *Australian Health Survey* (4311.0); *Australian Health Survey: Use of Health Services* (4325.0); *Health Insurance Survey, Australia* (4335.0); *Survey of Handicapped Persons, Australia* (4343.0); *Persons Employed in Health Occupations and Industries, Australia* (4345.0); *Characteristics of Persons Employed in Health Occupations and Industries, Australia* (4346.0); *Characteristics of In-patients of Hospitals, Nursing Homes and other Health Institutions, Australia* (4347.0); *Children's Dental Health Survey, Australia* (4350.0); *Children's Immunisation Survey, Australia* (4352.0); *Rubella Immunisation Survey, Australia* (4353.0); *Health Insurance Survey of Employed Wage and Salary Earners, Eight Capital Cities* (4355.0); *Australian Health Survey: Medical and Other Conditions Reported* (4356.0); *Australian Health Survey: Consequences of Illnesses* (4357.0); *Australian Health Survey: Action Taken* (4358.0).

Other Publications: Annual Reports of the (N.S.W.) Department of Health, the (Commonwealth) Department of Health, the (Commonwealth) Department of Community Services, Repatriation Commission and Health Insurance Commission.

7

EDUCATION

STRUCTURE OF THE EDUCATIONAL SYSTEM

In New South Wales, formal primary and secondary education is provided in government schools conducted by the (N.S.W.) Department of Education and in non-government schools conducted in most cases under the auspices of religious denominations. Pre-school education is provided in some government primary schools and in non-government pre-schools and kindergartens. Formal tertiary education is provided at technical and further education colleges under the control of the Department of Technical and Further Education, agricultural colleges under the control of the Department of Agriculture, non-government teachers colleges, colleges of advanced education, universities and at a number of other institutions. Non-formal education, often referred to as adult education or continuing education, is offered by a large number of government and private agencies in the State.

Attendance at school is compulsory for children between the ages of 6 and 15 years, i.e. children may leave school upon reaching the age of 15 years. Children may, however, be exempted from the requirement of compulsory attendance if there exists sufficient cause for such exemption. In government schools, education is secular and free. School dental and medical services (see Chapter 6 "Health") are provided for the benefit of children attending government and non-government schools.

NEW SOUTH WALES GOVERNMENT EDUCATION AUTHORITIES

Higher Education Board

The Higher Education Board, which is responsible to the (State) Minister for Education, undertakes general planning for the development of higher education in the State; advises and recommends on academic developments in the State; assesses and accredits advanced education courses; and provides advice to Commonwealth and State authorities on the financial needs of the State's higher education institutions.

Education Commission of New South Wales

The Education Commission of New South Wales, which is responsible to the (State) Minister for Education, provides advice on the formulation and implementation of policies concerning public education in New South Wales. It is also responsible for the employment of members of the teaching services of the Departments of Education and Technical and Further Education, through the Education Teaching Service and the Technical and Further Education Teaching Service.

New South Wales Department of Technical and Further Education

The Department of Technical and Further Education is the major authority responsible for the provision of vocational and other post-school general education in New South Wales. It administers a large number of technical and further education (TAFE) colleges and associated teaching centres throughout the State.

Particulars of technical and further education colleges, courses provided, and enrolments are given in the later subsection "Technical and Further Education Colleges".

Manuscript of this chapter prepared in May 1987.

New South Wales Department of Education

The Department of Education is the principal authority responsible for the provision and regulation of primary and secondary education in New South Wales. Departmental services include pre-school and kindergarten education, education of children with special educational needs, multicultural education, correspondence tuition, agricultural education, curriculum development, career guidance and counselling, and school building and accommodation programs.

The principal regulatory responsibilities of the Department relate to the compulsory attendance of children at school (between the ages of 6 and 15 years) and the registration of non-government schools. The registration provisions ensure that buildings and other facilities at non-government schools, and the education provided at these schools, meet prescribed standards and enable students attending such schools to be eligible for State bursaries and allowances.

Other functions of the Department include the administration of State bursaries and allowances.

Further details of the services provided by the Department of Education and statistics of schools and students at government and non-government schools are given in later sections of this chapter.

Secondary Schools Board and Board of Senior School Studies

The Secondary Schools Board advises the (State) Minister for Education on courses of study leading to the School Certificate and, on the basis of advice received from schools, issues the Certificates to students satisfying the Board's requirements. The Board of Senior School Studies determines the courses of study and regulates the conduct of examinations for the Higher School Certificate. Special committees are appointed by the Boards to recommend the content of the courses of study in individual subjects.

New South Wales Board of Adult Education

The N.S.W. Board of Adult Education is appointed by the (State) Minister for Education to advise the government on adult education policies for the State and for the co-ordination, development, promotion and encouragement of adult education throughout the State.

The Board recommended the allocation of government financial support to approximately 500 agencies in 1986 including colleges, universities, the Workers' Educational Association and many community based groups.

COMMONWEALTH GOVERNMENT EDUCATION AUTHORITIES

Commonwealth Department of Education

The Commonwealth Department of Education administers Commonwealth Government programs relating to education in conjunction with the Commonwealth Tertiary Education Commission and the Commonwealth Schools Commission.

In New South Wales, the Department administers various schemes of financial assistance for students and schools, provides advice and assistance in the fields of migrant, international and Aboriginal education, administers the Overseas Student Office, liaises with State education authorities and gives advice on educational matters.

Commonwealth Tertiary Education Commission

The Commonwealth Tertiary Education Commission advises the federal Minister for Education on all matters relating to the granting of financial assistance by the Commonwealth Government in respect of universities, colleges of advanced education and technical and further education institutions.

Commonwealth Schools Commission

The Commonwealth Schools Commission advises the Minister for Education on any aspect of primary and secondary education in Australia.

GOVERNMENT OUTLAYS ON EDUCATION IN NEW SOUTH WALES

STATE GOVERNMENT EXPENDITURE ON EDUCATION

The following table shows State Government expenditure on education in New South Wales in recent years. The introduction of program budgeting by the N.S.W. State Government has resulted in improved purpose dissections as compared to previous published figures. This has resulted in substantial revision to expenditure levels in some cases.

State Government Expenditure on Education
($'000)

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986p*
Current expenditure —						
Primary and secondary education *(a)*	1,401,389	1,640,506	1,779,158	1,907,359	2,067,081	2,107,471
University education	283,183	325,318	359,600	368,149	398,699	438,642
Other higher education *(b)*	r155,732	r159,502	r161,857	r172,450	183,565	198,575
Technical and further education	191,465	233,982	269,497	314,092	349,215	378,115
Tertiary education n.e.c.	1,057	1,236	1,395	1,464	1,499	1,443
Preschool education and education not definable by level *(a)*	37,370	50,580	r114,798	r144,324	130,888	149,104
Transportation of students	122,247	132,678	151,929	170,981	190,059	199,316
Education n.e.c.	2,087	1,916	2,730	2,716	2,542	919
Total, current expenditure	*2,194,530*	*2,545,718*	*2,840,964*	*3,081,535*	*3,323,548*	*3,473,585*
Capital expenditure —						
Primary and secondary education	159,084	162,967	120,488	152,491	160,266	174,044
University education	21,450	18,642	21,742	27,343	25,434	32,716
Other higher education	8,911	11,919	15,076	15,124	17,227	24,755
Technical and further education	47,408	52,282	62,750	53,021	78,664	78,219
Preschool education and education not definable by level	507	89	24	1,038	—	3,209
Total, capital expenditure	**237,360**	**245,899**	**220,080**	**249,017**	**281,591**	**312,943**

(a) Salaries and maintenance on special education included in "primary and secondary education" up to 30 June 1982. Included in "preschool education and education not definable by level" thereafter. *(b)* Includes advanced education.

COMMONWEALTH GOVERNMENT OUTLAYS ON EDUCATION

The following table shows selected outlays by the Commonwealth Government on education in New South Wales in recent years.

The figures cover Commonwealth Government outlays in the form of:

(a) grants to the New South Wales Government for current and capital purposes; and
(b) personal benefit payments to residents of New South Wales

that have been classified to the purpose of "education" in the Australian National Accounts. The figures do not represent the total outlays by the Commonwealth Government on education in New South Wales; they exclude, for example, outlays in the form of expenditure in New South Wales on administration of Commonwealth Government education programs.

Commonwealth Government Outlays on Education in New South Wales: Grants to the State for Current and Capital Purposes and Personal Benefit Payments ($'000)

Particulars	*Year ended 30 June* *1981*	*1982*	*1983*	*1984*	*1985*	*1986p*
	Grants to the State for current and capital purposes					
Grants for current purposes —						
Government schools	113,947	124,860	140,098	147,690	159,098	174,908
Non-government schools	117,380	151,071	196,071	222,098	237,239	266,587
Schools, joint programs	9,285	12,846	13,845	13,185	13,389	14,339
School-to-work transition	r8,303	11,496	13,142	*(b)*8,485	—	—
Technical and further education	r28,661	33,601	38,522	45,489	48,240	51,529
Colleges of advanced education	r131,913	136,453	145,905	174,046	180,481	202,336
Universities	282,878	325,035	359,432	368,063	398,558	438,264
Education research	368	200	80	—	—	—
Pre-schools	7,130	7,130	7,130	7,130	7,130	3,565
Child migrant and refugee education	1,181	1,414	*(a)*..	*(a)*..	*(a)*..	*(a)*..
Aboriginal education	1,022	1,032	1,170	1,148	1,174	1,262
Participation and equity program..	..	..	*(b)*	7,972	31,825	22,070
Total, grants for current purposes	*r702,068*	*805,138*	*915,395*	*r995,306*	*1,077,134*	*1,174,860*
Grants for capital purposes —						
Government schools	32,446	38,913	46,748	51,116	54,234	54,541
Non-government schools	13,217	15,812	16,959	12,618	16,919	19,704
Technical and further education	34,554	39,279	49,753	41,062	50,739	44,332
Colleges of advanced education	9,390	11,469	14,783	18,023	15,754	18,762
Universities	18,634	18,605	21,554	26,068	25,908	32,176
Video facilities—	—	29	371	190	223	206
Total, grants for capital purposes	*108,241*	*124,107*	*150,168*	*149,077*	*163,777*	*169,721*
Total, grants to the State	**r810,309**	**929,245**	**1,065,563**	**r1,144,383**	**1,240,911**	**1,344,581**
	Personal benefit payments					
Primary and secondary education	13,567	15,503	21,735	28,459	34,200	42,700
Tertiary education	57,146	58,623	68,077	85,734	99,200	114,300
Preschool education, and education not definable by level	4,066	4,808	5,508	4,249	3,300	3,600
Total, personal benefit payments	**74,779**	**78,934**	**95,320**	**118,442**	**136,700**	**160,600**

(a) Included with schools grants. *(b)* From January 1984, grants for the school-to-work program and the associated education program for unemployed youth have been included in the participation and equity program.

PRIMARY AND SECONDARY EDUCATION

COURSES OF INSTRUCTION

Primary Education

Formal primary education in New South Wales begins when children are 6 years old and enter Year 1, although most primary schools offer kindergarten classes for 5 year olds prior to Year 1. Primary education continues to Year 6. The primary curriculum includes English (listening, speaking, reading and writing), mathematics, social studies, arts and crafts (including woodwork and needlework), health education, moral and social education, science, music and physical education.

Kindergarten education is provided in most primary schools for children aged not less than 4 years and 9 months at the time of enrolment. Kindergarten children may be enrolled from the beginning of the school year provided they attain the age of five years by 31 July. Kindergarten education includes activities which develop the child physically, mentally and socially, and prepare him or her for later schooling.

Secondary Education

Students completing their primary school course proceed to a secondary school to commence their secondary education. In terms of the Education Act 1961, the full secondary course comprises a four-year (Years 7 to 10) course leading to the award of the School Certificate and a further two-year (Years 11 and 12) course leading to the Higher School Certificate examination.

School Certificate

Students in Years 7 to 10 of the secondary course undertake a program of study which includes a program of English, mathematics, science, a social studies course and at least one other subject. In accordance with the requirements for the award of the School Certificate, students must also have studied music, art, craft and physical education. During Years 7 to 8, students are introduced to a range of subjects available for elective study. The elective subjects, which must be chosen before the end of Year 8, include agriculture, Asian social studies, commerce, geography, history, home science, industrial arts, and a variety of language courses. Individual schools may adapt courses and programs to meet the particular needs of their students. Courses developed by individual schools may be approved by the Secondary Schools Board as subjects for School Certificate purposes.

The School Certificate is issued to students satisfactorily completing all requirements of the course. The issue of the certificate is based on teacher assessments in all subjects and on State-wide reference tests in English and mathematics.

The School Certificate shows student achievement in English and mathematics by grade and lists the other subjects which the student has studied satisfactorily. The minimum requirement for the issue of the School Certificate is the satisfactory study of English, mathematics, science, a social science, and at least one other subject as well as satisfactory participation in art, craft, music and physical education. In circumstances where all of the Board's requirements have not been met, students may be issued with a result notice.

In 1986, the School Certificate was issued to approximately 87,000 students.

Higher School Certificate

Students progressing to the final two years of the secondary course (Years 11 and 12) study English and an appropriate combination of other subjects. The Higher School Certificate examination is held at the end of the course.

There are two broad types of courses in the Higher School Certificate curriculum. These are *Board courses*, that have syllabuses and examinations set by the Board of Senior School Studies, and *other approved studies courses*, developed and administered by individual schools, and approved by the Board. All courses are based on units of study depending upon the amount of teaching and guided study time required per week.

Each student is required to follow a program involving at least eleven units in both Year 11 and Year 12, including at least two units of English in both years and a minimum of four other subjects in Year 11 and three other subjects in Year 12. A student who studies courses in mathematics and science in Year 11 that together total seven units must study English and at least two other subjects; a student who studies courses in mathematics and science in Year 12 that together total eight units must study English and at least one other subject. Science subjects may not contribute more than four units in any student's program of study, and students are not permitted to count *other approved studies* subjects totalling more than six units.

Candidates do not pass or fail an individual course or the Higher School Certificate. Instead, each candidate awarded the certificate is given two marks: a scaled examination mark and a moderated assessment mark. These marks are not combined in any way, but are reported separately.

The examination mark given in each course is derived entirely from the external examination. The moderated assessment mark in each course is derived from the school assessment.

School and non-school candidates who fail to fulfil conditions for the award of a certificate, receive a result notice which lists their results in the subjects attempted.

Applicants for admission to universities and colleges of advanced education are, in general, selected on the basis of an "aggregate mark". This mark is compiled by the tertiary institutions based on a number of different selection criteria. Each institution may determine its own specific entrance requirements.

In 1986, the Higher School Certificate was issued to approximately 41,000 students.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS, STUDENTS AND TEACHERS

Government and non-government schools provide full-time primary and/or secondary education for children in New South Wales and practically all children receive their primary and secondary education in these schools. Further particulars in respect of government schools and non-government schools are given separately later in this section.

In the following tables, particulars for schools cover all government and non-government schools, including the School of the Air, the Correspondence School, schools in hospitals and other institutions, and agricultural high schools. Excluded are evening, business and coaching colleges, agricultural colleges, technical and further education colleges, and separate kindergartens and pre-schools. A school's enrolment is the effective enrolment at the reference date, i.e. the number of students actually enrolled at that date, excluding those regarded as having left the school. The reference date for the statistics occurs in the last week in June or the first week in July.

The following table shows the total number of government and non-government schools in operation in New South Wales and the number of teachers in each group of schools in each of the last 6 years.

Government and Non-Government Schools, N.S.W.: Schools and Teachers

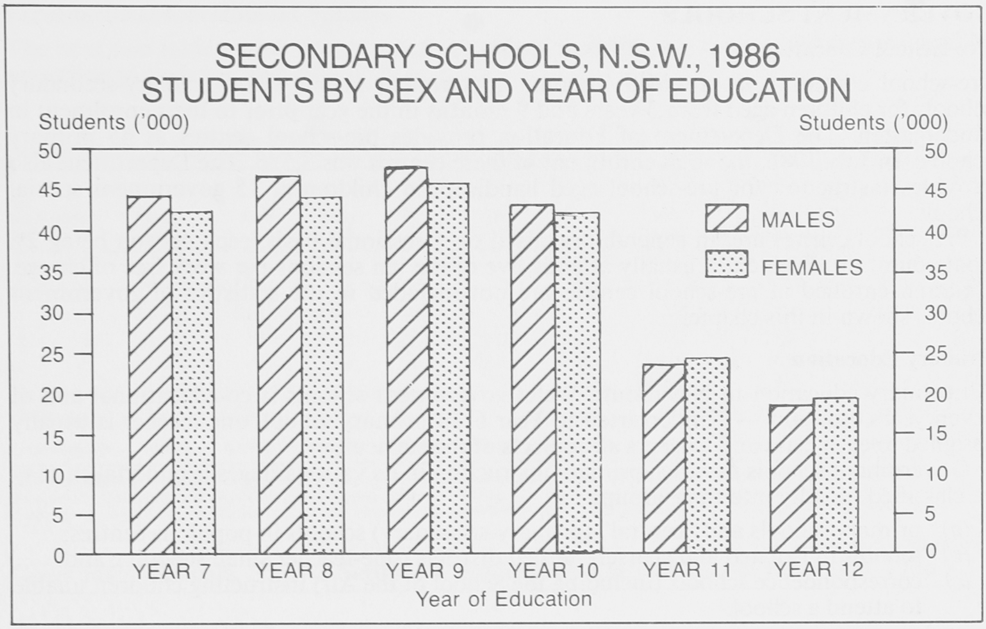
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Schools						
Government	2,236	2,242	2,237	2,237	2,239	2,233
Non-government	804	818	831	833	841	848
Total schools	**3,040**	**3,060**	**3,068**	**3,070**	**3,080**	**3,081**
Teachers (a)						
Government schools —						
Males	19,896	19,246	n.p.	19,596	20,572	20,354
Females	25,352	26,516	n.p.	26,958	26,275	26,769
Total	*45,248*	*45,762*	*45,800*	*46,554*	*46,846*	*47,123*
Non-government schools —						
Males	4,487	4,757	5,049	5,357	5,650	5,909
Females	8,176	8,505	8,917	9,466	9,905	10,285
Total	*12,663*	*13,262*	*13,965*	*14,824*	*15,555*	*16,194*
All schools —						
Total teachers	**57,911**	**59,024**	**59,765**	**61,378**	**62,401**	**63,317**

(a) Full-time teachers plus the full-time equivalent of part-time teachers.

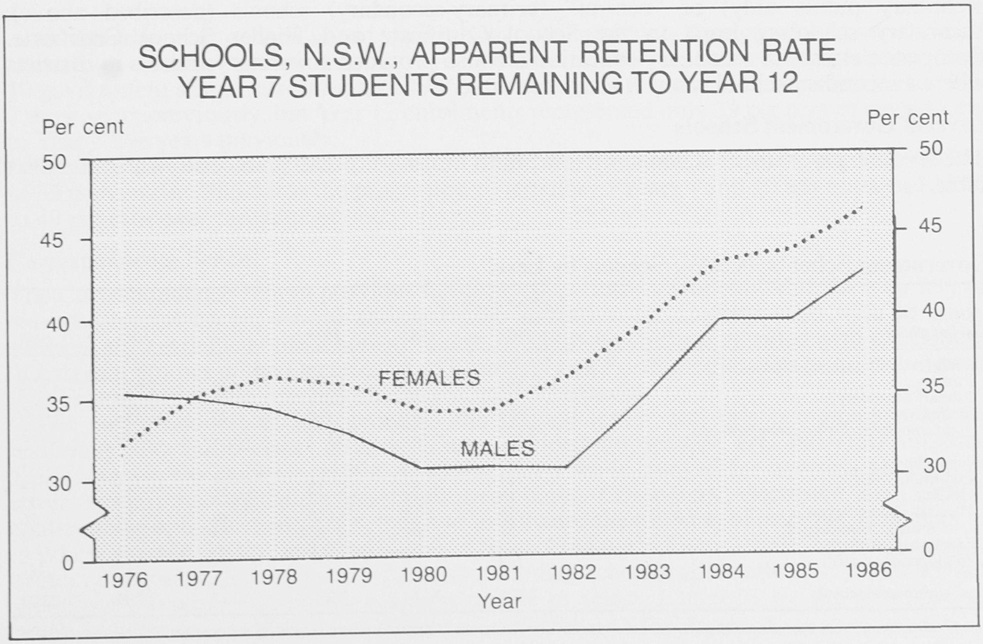
The enrolment at government and non-government schools in New South Wales in recent years is shown in the following table. In 1986, 26 per cent of students were enrolled at non-government schools, compared with 23 per cent in 1981.

Government and Non-Government Schools, N.S.W.: Students

Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Government schools —						
Males	404,548	400,423	399,300	395,505	390,778	387,556
Females	385,845	381,656	379,110	375,228	370,239	367,701
Persons	*790,393*	*782,079*	*778,410*	*770,733*	*761,017*	*755,257*
Non-government schools —						
Males	120,201	123,481	126,847	130,065	133,757	136,643
Females	117,652	121,526	124,659	127,596	130,658	134,150
Persons	*237,853*	*245,007*	*251,506*	*257,661*	*264,415*	*270,793*
All schools —						
Males	524,749	523,904	526,147	525,570	524,535	524,199
Females	503,497	503,182	503,769	502,824	500,897	501,851
Persons	**1,028,246**	**1,027,086**	**1,029,916**	**1,028,394**	**1,025,432**	**1,026,050**



SECONDARY SCHOOLS, N.S.W., 1986
STUDENTS BY SEX AND YEAR OF EDUCATION



SCHOOLS, N.S.W., APPARENT RETENTION RATE
YEAR 7 STUDENTS REMAINING TO YEAR 12

GOVERNMENT SCHOOLS

Pre-School Education

Pre-school education is provided in some government primary and primary-secondary schools for children aged from 3 years and 9 months in the year prior to their enrolment in kindergarten. The Department of Education provides pre-school centres at 65 primary schools. In July 1986, the total enrolment of these centres was 3,556. The Department also provides instruction for pre-school aged handicapped children at 15 government special schools.

Pre-school centres are, in general, organised on a sessional basis, each session being 2½ hours duration. Each child usually attends five of the ten sessions per week free of charge. Children enrolled at pre-school centres are not included in the statistics of government schools shown in this chapter.

Primary Education

All primary education in New South Wales government schools is co-educational and of seven years duration — Kindergarten to Year 6. In primary school, one teacher is usually assigned to each class and teachers all subjects of the curriculum.

Government schools in which primary instruction in its various stages is undertaken may be classified broadly into three groups:

- *(a)* primary schools and "central" (primary-secondary) schools in populous centres;
- *(b)* schools in isolated and sparsely-settled districts (one-teacher small schools); and
- *(c)* correspondence schools (including the School of the Air) instructing children unable to attend a school.

A government primary school may be established in any locality where the attendance of at least 9 children is assured. Where the enrolment in classes above Year 2 is 160 or more, and is 100 or more in classes of Year 2 or lower, the school is divided into two departments, primary and infants.

"Central" (primary-secondary) schools provide both primary and secondary instruction and have an enrolment of at least 20 students in secondary classes (including at least 8 in classes above year 7); they may have separate secondary and/or infants departments if enrolment is large.

Secondary Education

Secondary education in the government sector is provided at high schools (which enrol secondary pupils only) or "central" (primary-secondary) schools (described above). Secondary schooling leads to the School Certificate and Higher School Certificate. Composite classes in secondary education are also provided at primary schools in districts where a secondary school is not readily accessible.

Level of Government Schools

The level of government schools in New South Wales in recent years is shown in the next table.

Government Schools, N.S.W.: Schools by Level

	Number of schools					
Level of school	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Schools (excluding special schools) —						
Primary	*(a)*1,695	1,690	1,679	1,678	1,677	1,674
Primary-secondary	64	*(a)*74	*(a)*77	*(a)*73	*(a)*69	*(a)*65
Secondary	363	363	368	370	374	377
Total schools (excluding special schools)	*2,122*	*2,127*	*2,124*	*2,121*	*2,120*	*2,116*
Special schools —						
Community care	17	17	16	15	15	14
Hospital	15	13	13	13	13	13
Physically handicapped	16	16	16	16	16	16
Intellectually handicapped	61	64	62	66	69	68
Emotionally disturbed	5	5	6	6	6	6
Total special schools	*114*	*115*	*113*	*116*	*119*	*117*
Total government schools	**2,236**	**2,242**	**2,237**	**2,237**	**2,239**	**2,233**

(a) Includes schools that provide composite courses in secondary education in districts where secondary schools are not readily accessible.

Enrolments at Government Schools

The next two tables show primary and secondary students in government schools in 1986 according to their age and school year.

Government Schools, N.S.W.: Primary Students by Age and Year of Education, 1986

								Ungraded		
Age last birthday (years)	*Kinder-garten*	*Year 1*	*Year 2*	*Year 3*	*Year 4*	*Year 5*	*Year 6*	*Special schools (a)*	*Classes (b)*	*Total*
Under 5	2,117	—	—	—	—	—	—	189	57	2,363
5	54,025	2,058	4	—	—	—	—	250	127	56,464
6	5,252	52,295	2,151	2	—	—	—	273	218	60,191
7	29	7,443	49,534	1,917	3	—	—	262	267	59,455
8	—	107	8,843	47,597	1,878	1	—	296	623	59,345
9	—	5	81	9,923	46,756	1,625	4	354	902	59,650
10	—	—	4	166	10,612	46,094	1,842	347	1,560	60,625
11	—	—	1	1	192	12,224	46,713	365	1,359	60,855
12	—	—	1	1	4	191	13,655	313	617	14,782
13 or more	—	—	—	—	2	5	269	1,302	146	1,724
Total students	**61,423**	**61,908**	**60,619**	**59,607**	**59,447**	**60,140**	**62,483**	**3,951**	**5,876**	**435,454**

(a) Special schools include community care schools, hospital schools, and schools for mildly and moderately intellectually-handicapped, emotionally disturbed, and physically handicapped children. *(b)* Ungraded classes may include students of outstanding ability, students in classes providing intensive English instruction, emotionally disturbed students, and physically and intellectual handicapped students.

Government Schools, N.S.W.: Secondary Students by Age and Year of Education, 1986

							Ungraded		
Age last birthday (years)	*Year 7*	*Year 8*	*Year 9*	*Year 10*	*Year 11*	*Year 12*	*Special schools (a)*	*Classes (b)*	*Total*
Under 12	1,759	6	—	—	—	—	39	17	1,821
12	45,014	1,609	1	—	—	—	109	418	47,151
13	14,656	47,770	1,865	1	—	—	256	870	65,418
14	421	16,141	49,929	1,707	1	—	306	826	69,331
15	18	512	15,693	46,282	1,140	4	322	528	64,499
16	6	31	596	12,991	23,998	1,055	216	294	39,187
17	—	5	93	611	6,390	18,393	156	141	25,789
18	—	—	21	133	593	4,803	40	73	5,663
19 or more	—	1	10	44	204	649	6	30	944
Total students	**61,874**	**66,075**	**68,208**	**61,769**	**32,326**	**24,904**	**1,450**	**3,197**	**319,803**

(a) (b) See footnotes to previous table.

As attendance at school is not compulsory after reaching the age of 15 years, a high proportion of students do not remain at school to complete the full secondary course. Year 10 government school enrolments in 1986 represented 90 per cent of the enrolments in Year 7 three years previously, but Year 12 enrolments represented only 39 per cent of enrolments in Year 7 five years previously.

Females have increased their proportion of all Year 12 students from 48 per cent in 1976 to 52 per cent in 1986 while the proportion of females in Years 7 and 10 has remained at 48 to 49 per cent over the same period.

Correspondence School

The Correspondence School provides full-time education for students who, for a variety of reasons, cannot attend school and part-time education for students who wish to study subjects not available at the school attended. In addition, students enrolled with the College of External Studies of the Department of Technical and Further Education may receive part-time instruction in subjects not offered by that Department.

The basic medium of instruction is the printed leaflet and this is supplemented by textbooks and audio-visual aids. Kits are provided for science, art, and craft subjects. Tuition is free for students within Australia, but a fee is charged for overseas students to cover airmail postage and other additional costs. Computers, electronic mail, audio conferencing and television are being used to enhance the teaching of isolated children.

Where classes are too small to justify full teaching-period allocations, especially in the context of smaller, geographically isolated secondary schools, application may be made for assistance for senior secondary school students in selected subjects by the provision of lesson leaflets.

In 1987, total enrolment at the Correspondence School was 3,310. This comprised 2,209 part-time students also enrolled at other schools, 57 part-time Year 12 students transferred from the College of External Studies of the Department of Technical and Further Education, 485 full-time pre-school and primary students, and 559 full-time secondary students.

Distance Education Centres

Distance Education Centres have been established in primary schools at three country centres in New South Wales. The centres provide an opportunity for isolated home pupils to spend time in a normal classroom. These centres are an integral part of the local schools but are linked with the Correspondence School and utilise its resources.

School of the Air

The School of the Air, at Broken Hill, is conducted by the N.S.W. Department of Education and caters for pupils living in isolated areas of the state as well as some children across the border in Queensland and South Australia. Lessons, generally at a primary level of schooling, are presented from 9.30 a.m. to 3.30 p.m. each schoolday by two-way radio. Face-to-face contact between teachers and pupils is encouraged by pupils' visits to the school and teachers' visits to outlying stations. School activities are shared by the holding of mini-schools at various centres during the school year. Total enrolment at the School of the Air in 1987 was 201 (including 22 interstate enrolments).

English as a Second Language

A total of 52,087 students received assistance in 1986 in the general element of the English as a Second Language program and a further 4,700 newly arrived students were assisted in the new arrivals element. Instruction is given at intensive language centres and at special and regular schools.

Saturday School of Community Languages

The Saturday School of Community Languages, conducted by the N.S.W. Department of Education, enables secondary school students to study, to the School Certificate and Higher School Certificate levels, languages that they would not otherwise have access to because of the dispersed nature of the demand for such courses. In 1986, courses were offered in 20 languages to 6,221 students at 11 centres in Sydney and Wollongong.

Community Languages Program

The Community Languages Program for primary school children is a voluntary program of instruction in a language other than English offered to both native speakers, i.e. children for whom such languages are their first language, and to non-native speakers, i.e. children wishing to gain access to another language. Native speakers have priority. Programs are established at the request of a school and its community.

Currently, 80 permanent specialist community language teachers teach 11 languages in 66 schools spread across seven regions of the State. The languages taught were Arabic, Chinese, German, Greek, Italian, Macedonian, Maltese, Serbian, Spanish, Turkish and Vietnamese. At the end of 1986, approximately 13,000 children were receiving community language instruction. Of these, almost 7,000 were native speakers of the language.

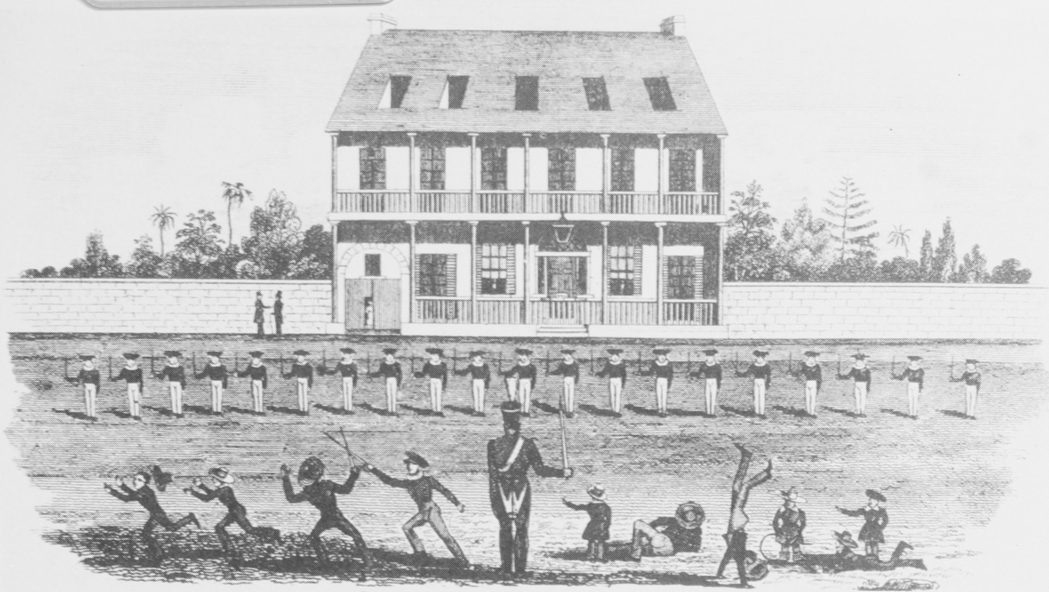
Agricultural Education

The N.S.W. Department of Education maintains four agricultural high schools — the Yanco Agricultural High School (in the Murrumbidgee Irrigation Area), the Hurlstone Agricultural High School (at Glenfield, in south-western Sydney), the Farrer Memorial High School (at Nemingha, near Tamworth) and the James Ruse Agricultural High School (at Carlingford, in Sydney's north west). These schools and the teachers and students in them are included in the statistics in this chapter relating to government schools.

The schools offer subjects that are part of the standard high school curriculum, however they do place a special emphasis on agriculture and agricultural subjects.

Provision for Children with Special Needs

The N.S.W. Department of Education provides a range of support programs for students with disabilities. Depending upon severity and circumstance, assistance may take the form of support in a regular classroom from either school or itinerant personnel or placement in a



Normal Institution.
Hyde Park, Sydney.

Mitchell Library, State Library of New South Wales

Early education in N.S.W. consisted mainly of a few private schools, private tutoring and public schools providing religious and secular education firmly dominated by the Church of England. The Normal Institution (above) was founded in 1834 by Henry Carmichael on the lines of the Irish national education system, the main feature of which was that the religious content was non-denominational. Governor Bourke planned to introduce this system into N.S.W. but was unsuccessful because of strong opposition from the Protestant denominations. The Normal Institution therefore closed in the mid 1840's. The pupils are shown being drilled in sword exercises by a member of the colonial regiment.

The Sussex Street Ragged and Industrial School (below) was one of a number connected with the Anglican Church which were designed to educate Sydney's poorest children. The students were mainly attracted by free clothing and food, and were taught scripture, reading, writing, arithmetic and some simple industrial skills.

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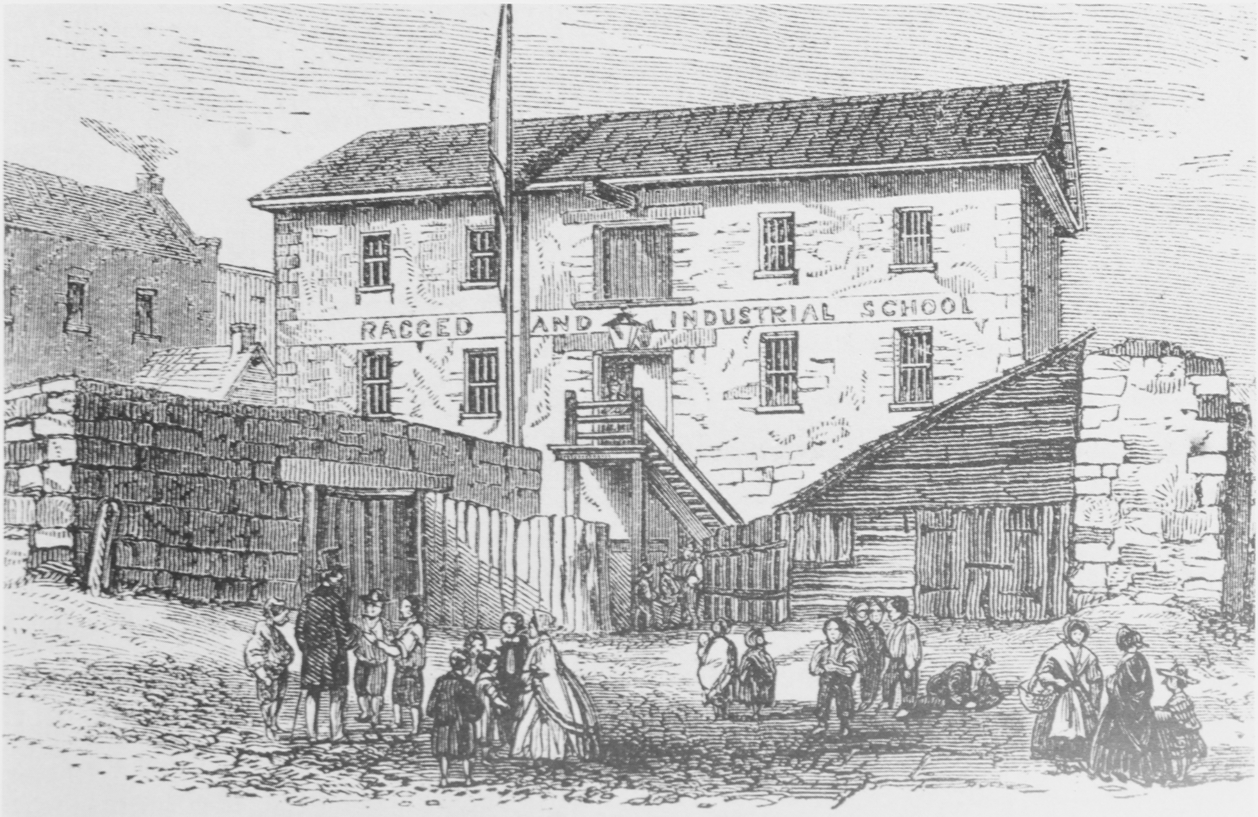
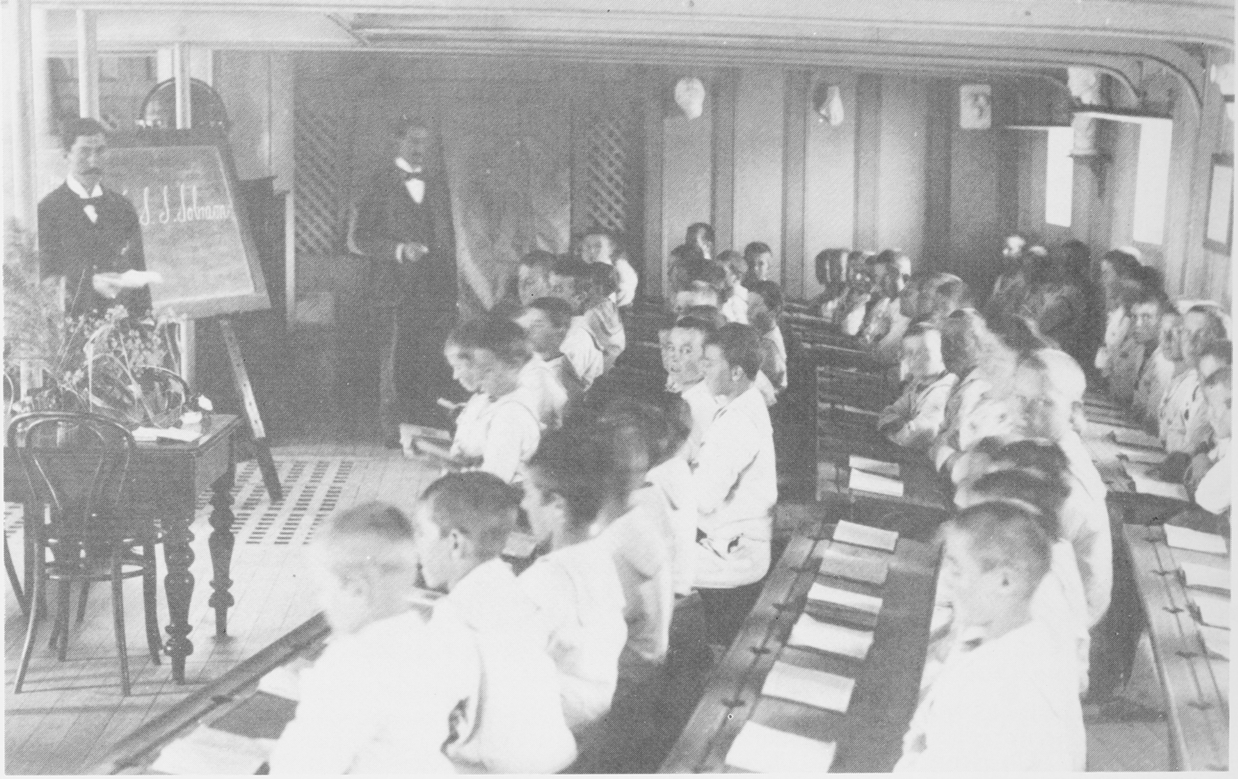


THE RAGGED SCHOOL BUILDING IN SUSSEX STREET, SYDNEY.

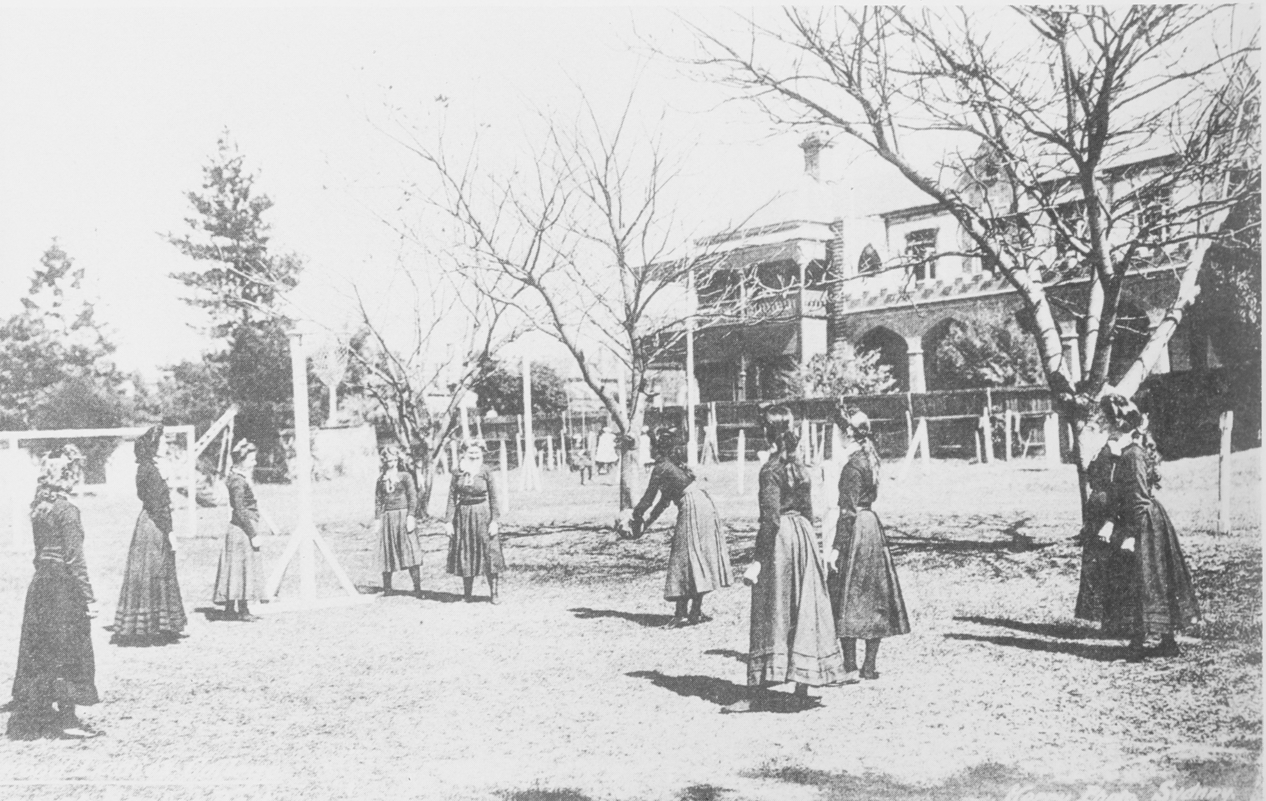


Archives Office of N.S.W.

In 1866 the N.S.W. Government undertook the care and education of the Colony's neglected and delinquent children through the Industrial Schools Act. For boys this came in the form of nautical schools, firstly on the Vernon and, from 1892 to 1911, on the Sobraon (above). It was believed that these training ships provided a good environment and education for the boys and would provide the Navy with future sailors.

Methodist Ladies' College, Burwood. A game of basketball. Although some Catholic girls' schools existed prior to 1880, private schools of secondary education for girls were mainly developed during the 1880s, stimulated by the Sydney University's decision to admit women in 1881. Methodist Ladies' College, Burwood commenced in 1886.

Mitchell Library, State Library of New South Wales



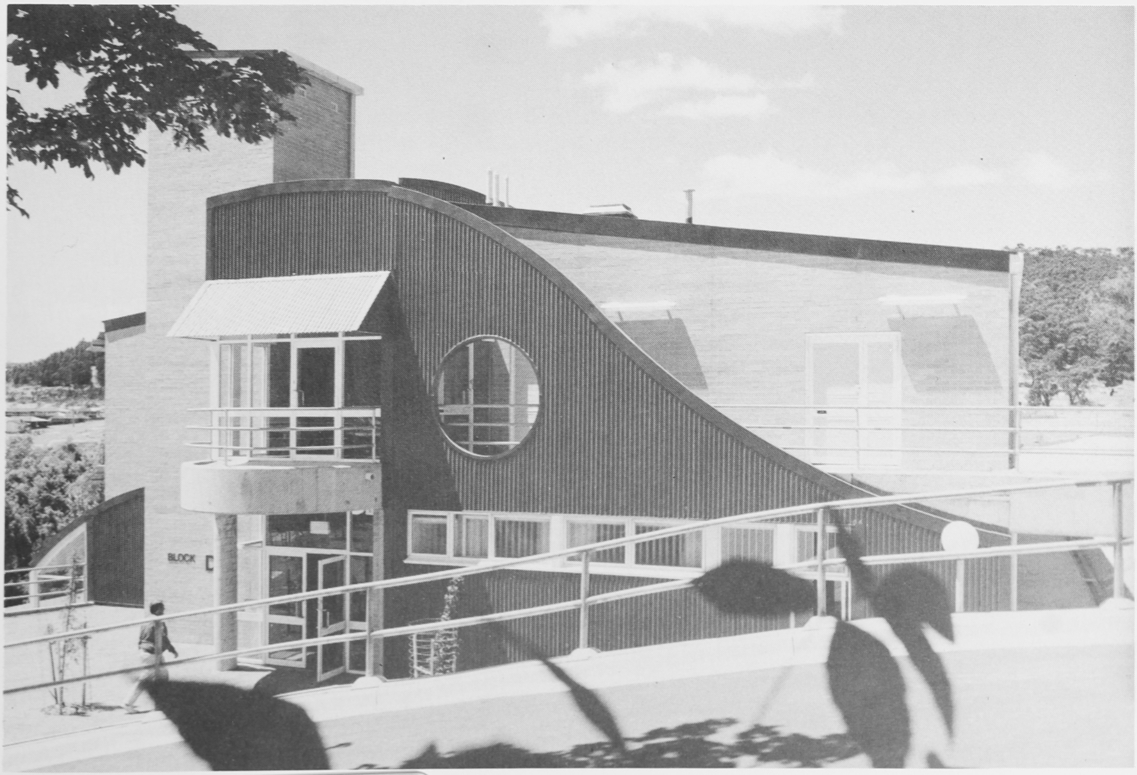
CASTROL
AUST ARMY AMENITIES SERVICE

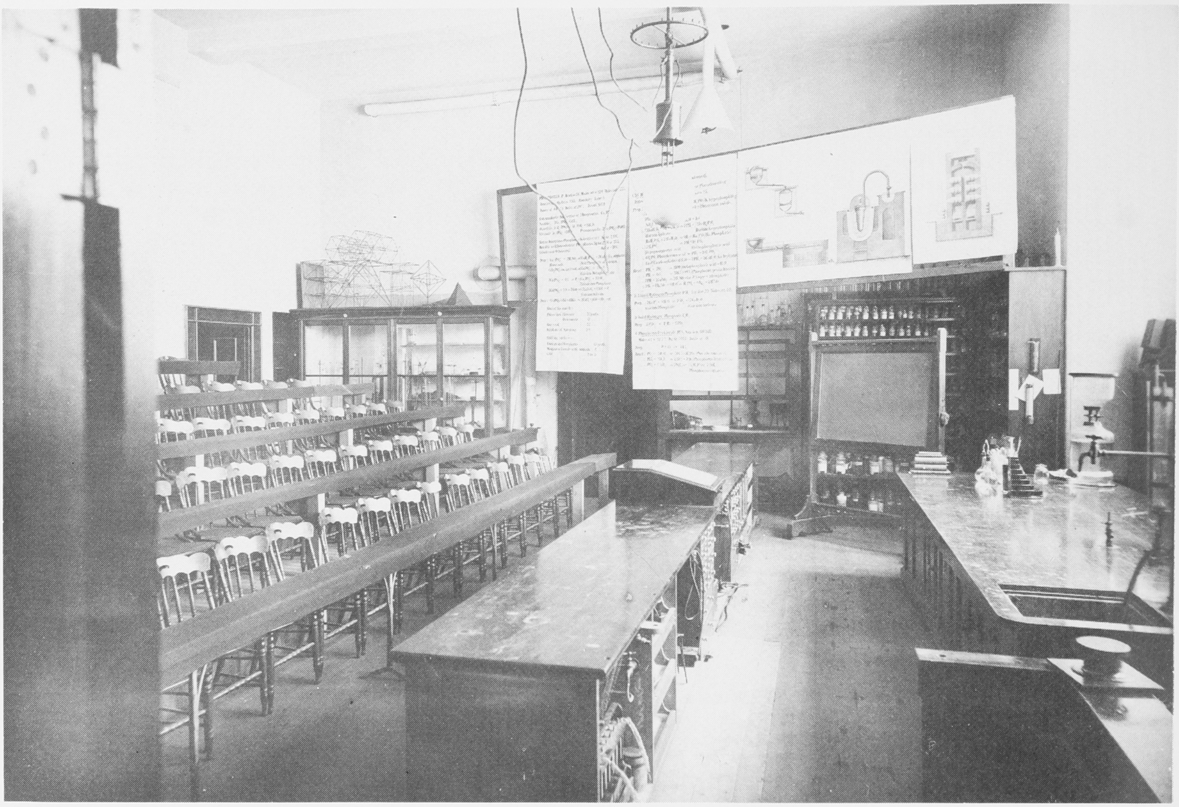
Department of Education, N.S.W.

Westmead Evening College, about 1960. After the Second World War, evening colleges were developed to meet the needs of people who had left school but desired to continue with general education and hobby courses. Apart from general subjects, such as English, mathematics and science, instruction was given in commercial subjects, physical education, and a wide variety of arts, crafts, and hobbies (e.g. dramatic art, dressmaking, weaving and woodwork).

Lithgow Technical College, 1986. In 1986 there were 100 technical and further education (TAFE) colleges in the State. These colleges offer over 900 different courses, most of which are vocational — that is, they provide training for the workplace. A number, however, cater for leisure or hobby interests and for personal enrichment. Others are general education courses in Higher School Certificate and School Certificate subjects. Remedial classes are run for people with deficiencies in reading, writing or number skills and there are special English classes for those to whom English is a second language.

Photograph by Alan Townsend, N.S.W. Public Works Department





N.S.W. Government Printer

Sydney University Chemical Theatre, 1887. Sydney University opened in 1852 and for almost a hundred years was N.S.W.'s only university.

In 1948, N.S.W. obtained its second university, the New South Wales University of Technology (now the University of New South Wales) and in 1954 a former campus of the University of Sydney in Armidale became the University of New England. Booloominbah (below) became the administrative centre of the new university. Designed by John Horbury Hunt, it was built in 1888 as a private residence

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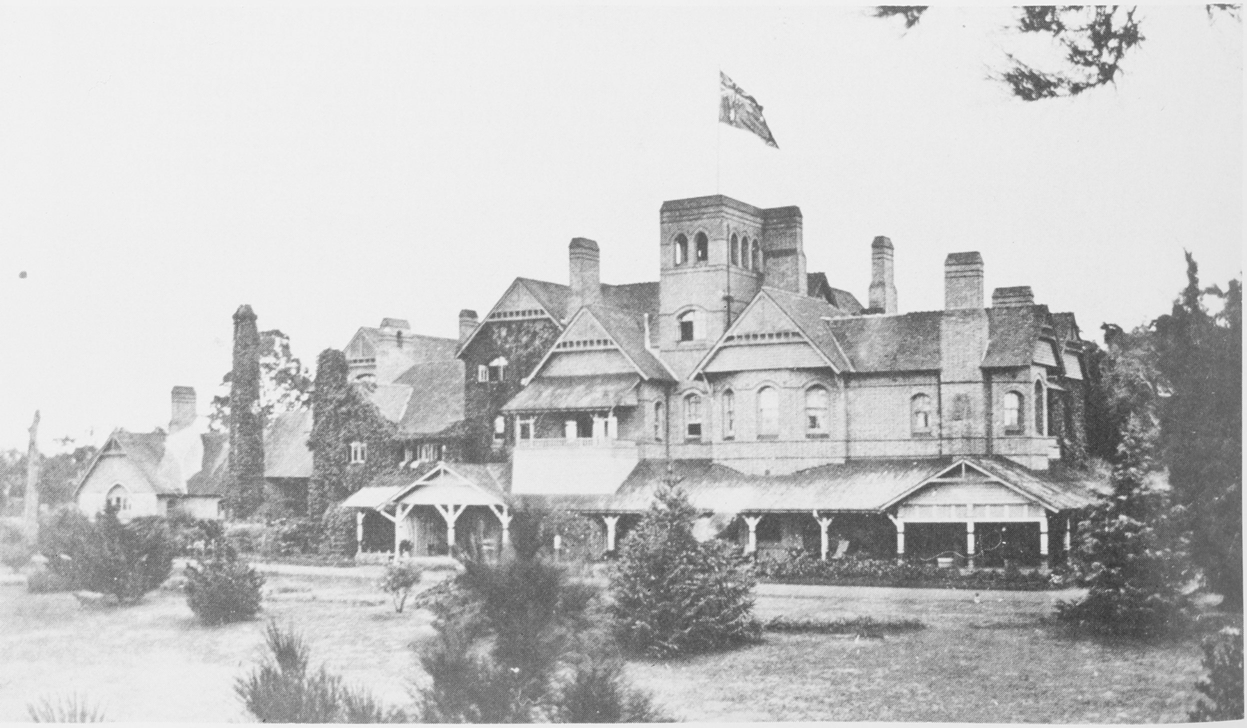


support class in a regular or special school.

The Department also provides special classes for highly intelligent children. Further details concerning special schools and classes are shown in the 1986 issue of the New South Wales Year Book, page 154.

Religious Instruction

The Public Instruction Act 1880 provides that teaching in government schools must be strictly non-sectarian. Religious instruction is given for a period of up to an hour each school-week, with the consent of parents, by authorised religious teachers who visit the schools to instruct children of their particular religious denomination.

Physical Education and Sport

Physical education is compulsory, in government schools, for all students up to and including Year 10. It may also be taught as other approved studies in Years 11 and 12. Courses of training for teachers are provided at Sydney University, the Kuring-gai and Newcastle Colleges of Advanced Education, the University of Wollongong, the Australian College of Physical Education and the Catholic College of Education.

Sport is compulsory for all students in government schools. Many primary schools are participating in the Aussie Sports program which helps develop sporting skills in modified versions of major games.

School camps for students over 10 years of age are held during the year at sport and recreation centres throughout the state.

The N.S.W. Department of Education provides a swimming scheme in which students from Years 2 to 6 receive intensive instruction in swimming over a 10 day period. Instruction is also provided by the Department of Sport and Recreation at summer vacation swimming schools. During the 1986-87 summer, 66,000 children attended the vacation swimming schools.

Aboriginal Education

The N.S.W. Department of Education's Aboriginal education unit employs regional consultants to help implement its Aboriginal education policy. The Department employs 50 Aboriginal teachers and 150 Aboriginal teachers' aides. A training course is offered off-campus through the Macarthur Institute of Higher Education.

The Commonwealth government provides teacher training awards for Aboriginal teachers.

Computers in Schools

Specially approved computer courses are being taught at more than half of the high schools in New South Wales. A computer awareness course was introduced for years 7 to 10 in 1987.

Parents and Citizens' Associations

Parents and Citizens' Associations have been organised in connection with government schools to promote the interests of local schools and their students. The associations assist in the provision of school equipment, promote closer co-operation between parents, school staff, students and other members of the community and advise the Minister of Education on a variety of matters relating to state schools.

NON-GOVERNMENT SCHOOLS

If they wish, parents may send their children to non-government (private) schools to receive primary or secondary education, or both.

Non-government schools must be certified as efficient (taking into account the standard of instruction, qualifications of the teachers, suitability of school premises, and general conduct of the school) for the education of children of statutory school age by the N.S.W. Minister for Education before they may enrol children of this age. The standards of instruction required of non-government schools are the same as those of government schools of similar grade. The total number of non-government schools in 1986 was 848.

Fees are usually charged at non-government schools, but they vary considerably in amount. In some denominational schools, the payment of fees is to some extent voluntary (depending on means), and a number of scholarships and bursaries have been provided by private subscription for the assistance of deserving students. Some of the non-government schools are residential.

The State Government makes annual grants to non-government schools in respect of each student enrolled. These are described in the subsection "State Government Assistance to Students" later in this chapter. In addition, non-government schools may receive State subsidies for interest on loans for essential building works.

Roman Catholic School System

The Roman Catholic schools comprise the largest group of non-government schools in New South Wales. They are organised to provide a complete school system of religious and secular education, both primary and secondary. Special schools are maintained for the training of the deaf and blind (described later in this chapter) and the mentally retarded.

The Roman Catholic school system is organised on a diocesan basis in 11 dioceses in New South Wales. In each diocese, the system of education is controlled by the bishop, and a director of Catholic education (appointed by the bishop) is charged with general supervision. The Catholic Education Commission, established by the Conference of Bishops of New South Wales, is concerned with State-wide matters of Catholic education.

The majority of the schools are parish property, and the parish authorities are responsible for construction of the buildings, repairs and maintenance and the provision of equipment. The cost of these schools is met partly by school fees, which are supplemented by parish collections, voluntary contributions, and by Commonwealth and State Government grants. The other Roman Catholic schools are the property of the religious orders that conduct them, and are similarly supported without the supplement from parish collections.

In secular subjects, the curriculum of the Department of Education is followed, and the schools are subject to inspection by departmental inspectors. Diocesan consultants and supervisors from the religious orders visit the schools to promote standards in education. Secondary schools provide a range of secondary courses and are registered under the Bursary Endowment Act 1912 and the Education Act 1961. Courses include commercial, technical and agricultural subjects. Pupils of Roman Catholic schools attend the public examinations for the Higher School Certificate. Teaching staff at Catholic schools consist of both lay teachers and members of religious communities. An increasingly large number of lay teachers have been employed at the schools in recent years. In 1986 only 8 per cent of the teaching staff were members of religious communities. Information relating to the training of teachers is shown in the subdivision "Training of Teachers".

Non-Government Schools, Students, and Teachers

The following table shows the categories of non-government schools in operation in recent years, and the number of teachers in the schools.

Non-Government Schools and Teachers, N.S.W.

Year	*Roman Catholic*	*Anglican*	*Presbyterian*	*Uniting*	*Seventh Day Adventist*	*Other*	*Total*
			Number of schools				
1981	609	31	4	8	29	123	804
1982	604	32	4	9	30	139	818
1983	604	35	4	9	30	149	831
1984	602	35	*(a)*	*(a)*	*(a)*	196	833
1985	600	34	4	7	32	164	841
1986	604	36	4	7	32	165	848
			Teachers *(b)*				
1981	9,735	1,099	175	465	149	1,040	12,663
1982	10,126	1,172	192	501	158	1,113	13,262
1983	10,600	1,242	202	527	166	1,228	13,965
1984	11,240	1,296	*(a)*	*(a)*	*(a)*	2,288	14,824
1985	11,652	1,368	*(a)*	*(a)*	*(a)*	2,535	15,555
1986	11,959	1,469	*(a)*	*(a)*	*(a)*	2,766	16,194

(a) Included in other. *(b)* Full-time teachers plus the full-time equivalent of part-time teachers.

Of total teachers at non-government schools in 1986 (based on full-time equivalent), 64 per cent were females and 36 per cent were males.

The next table shows the enrolment at non-government schools in recent years, according to the category of school.

Non-Government Schools, N.S.W.: Students by Category of School

Year	*Roman Catholic*	*Anglican*	*Presbyterian*	*Uniting*	*Seventh Day Adventist*	*Other*	*Total*
			Number of students				
1981	195,773	16,454	2,458	7,081	2,676	13,411	237,853
1982	199,863	17,360	2,638	7,610	2,774	14,762	245,007
1983	203,563	18,066	2,728	7,884	2,823	16,442	251,506
1984	206,460	19,051	*(a)*	*(a)*	*(a)*	32,150	257,661
1985	209,432	19,390	*(a)*	*(a)*	*(a)*	35,593	264,415
1986	212,116	20,236	*(a)*	*(a)*	*(a)*	38,441	270,793

(a) Included in other.

In 1986, Roman Catholic schools accounted for 78 per cent and Anglican schools 7 per cent of the total enrolment at non-government schools.

A classification of primary students in non-government schools according to their age and year of education is given in the following table.

Non-Government Schools, N.S.W.: Primary Students by Age and Year of Education, 1986

Age last birthday (years)	*Kindergarten*	*Year 1*	*Year 2*	*Year 3*	*Year 4*	*Year 5*	*Year 6*	*Ungraded*		*Total*
								Special schools (a)	*Classes (b)*	
Under 5	242	—	—	—	—	—	—	67	—	309
5	17,658	258	—	—	—	—	—	34	30	17,980
6	2,112	17,230	260	1	—	—	—	32	52	19,687
7	17	2,325	16,772	308	1	—	—	38	34	19,495
8	—	29	2,558	16,836	349	—	—	45	36	19,853
9	—	2	48	2,744	16,940	368	1	38	30	20,171
10	—	—	2	52	2,836	17,035	395	45	45	20,410
11	—	—	1	3	81	3,293	17,768	43	20	21,209
12	—	—	—	1	2	91	3,611	16	5	3,726
13 or more	—	—	—	—	—	3	96	18	2	119
Total students	**20,029**	**19,844**	**19,641**	**19,945**	**20,209**	**20,790**	**21,871**	**376**	**254**	**142,959**

(a) Special schools include child welfare schools, hospital schools, and schools for mildly and moderately intellectually handicapped, emotionally disturbed, and physically handicapped children. *(b)* Ungraded classes include students in progressive classes, emotionally disturbed students, and physically and emotionally handicapped students. *(c)* Excludes 423 students not identifiable to primary or secondary.

The next table contains a classification of secondary students according to their age and year of education.

Non-Government Schools, N.S.W.: Secondary Students by Age and Year of Education, 1986

Age last birthday (years)	*Year 7*	*Year 8*	*Year 9*	*Year 10*	*Year 11*	*Year 12*	*Ungraded*		*Total*
							Special schools (a)	*Classes (b)*	
Under 12	658	1	—	—	—	—	4	—	663
12	20,308	651	4	—	—	—	28	5	20,996
13	3,898	19,948	713	—	1	—	33	20	24,613
14	116	4,117	20,050	797	1	—	42	24	25,147
15	5	127	4,031	19,250	649	—	43	15	24,120
16	1	3	139	3,354	12,568	458	29	8	16,560
17	—	—	7	144	2,305	10,525	24	2	13,007
18	—	—	—	16	154	1,834	16	1	2,021
19 or more	—	—	—	47	29	192	16	—	284
Total students	**24,986**	**24,847**	**24,944**	**23,608**	**15,707**	**13,009**	**235**	**75**	**127,411**

(a) (b) (c) See footnotes to previous table.

Attendance at school is not compulsory after reaching the age of 15 years and a high proportion of students do not remain at school to complete the full secondary course. Year 10 non-government school enrolments in 1986 represented approximately 99 per cent of the enrolments in Year 7 three years previously, but Year 12 enrolments represented only 60 per cent of enrolments in Year 7 five years previously.

In 1986, females comprised 50 per cent of Year 7 students, 50 per cent of Year 10 and 51 per cent of Year 12, compared with 50 per cent, 51 per cent and 46 per cent, respectively, in 1976.

Education for Deaf and Blind Children

There are two Roman Catholic schools for deaf children and two for blind children. These schools, and the teachers and students in them, are included in the statistics relating to non-government schools.

EDUCATIONAL AND VOCATIONAL GUIDANCE

Guidance personnel within the N.S.W. Department of Education, comprising guidance officers, school counsellors, and specialist counsellors, all with teacher experience and training in psychology, assist pupils and other members of school communities with problems of an educational, social or emotional nature. Psychological tests are used when appropriate. In addition, there are 18 educational clinics to aid government and non-government school children with special problems.

In 1987, there were 536 school counsellors (317 in the Sydney metropolitan area and 219 in other areas), including 16 specialist counsellors, 66 district guidance officers and 10 regional guidance officers.

Each government secondary school has a careers adviser who is responsible for the development of a career education program for students. Programs include work experience, career nights, and visits to industrial and commercial organisations.

Additional assistance is given to students by the Vocational Services Branch of the N.S.W. Department of Industrial Relations.

COMMONWEALTH GOVERNMENT ASSISTANCE FOR SCHOOLS

Commonwealth Government assistance for government and non-government schools is provided through the Commonwealth Schools Commission and the Commonwealth Department of Education under the provisions of the various States Grants (Schools Assistance) Acts.

NON-GOVERNMENT PRE-SCHOOL EDUCATION

In New South Wales, pre-schools and kindergartens are provided where children of pre-school age may receive social and educational experience away from the family. These facilities are conducted by local government authorities, and religious, community-based, and other private organisations.

Pre-schools are usually operated on a sessional basis where children attend a number of half-day sessions per week, or extended sessional basis where the program of education is continuous.

TERTIARY EDUCATION

TECHNICAL AND FURTHER EDUCATION COLLEGES

This subdivision deals with government technical and further education colleges and associated teaching centres in New South Wales. These institutions are administered by the N.S.W. Department of Technical and Further Education (TAFE), which is responsible to the (State) Minister for Education.

In 1986 there were 100 technical and further education colleges (26 in the Sydney metropolitan area and 74 in other areas) operated by the Department throughout the State. Mobile units (consisting of specially equipped caravans and railway carriages) are used for technical training in some outlying areas of the State.

Correspondence courses are provided, through the College of External Studies (at Redfern), for students unable to attend classes.

The Department runs approximately 1,000 TAFE courses each year. Most of these are vocational, that is, they provide training for the workplace. A number, however, cater for leisure or hobby interests and for personal enrichment. Others are general education courses in Higher School Certificate and School Certificate subjects. Remedial classes are run for people with deficiencies in reading, writing or number skills and there are special English classes for those to whom English is a second language.

Most courses are suitable for school leavers. Many are suitable for adults wishing to enter or re-enter the workforce, to retrain in fields other than those they now occupy or to update their knowledge and skills in their present field.

Streams of Study

The National Technical and Further Education Council (TAFEC), recognises, as a basis for national statistics, six streams of study in TAFE.

The stream of each course is determined by *the level of occupation* it trains for. The stream is not necessarily related to the course level. For instance, the ornamental ironwork special course is Stream 1 (Professional), as it is intended for secondary school teachers. Similarly, associate diploma courses and certificate courses are usually Stream 2, because they offer training to the para-professional level.

The TAFEC definition of stream is:

Stream 1 (Professional): Courses which lead to professional status (including teacher education) or which enable professionals to update their technology or to specialise.

Stream 2 (Para-professional): Courses provided for those preparing to enter or progress within middle-level or technician occupations. This stream includes a wide range of certificate courses and some special courses which are similar in complexity and purpose. It also includes short courses designed to enable para-professionals to update their technology or to specialise.

Stream 3 (Apprenticeship trades): 3(a) Apprenticeship, pre-apprenticeship and pre-employment courses in apprenticeable trades. 3(b) Post-trade and other courses for advanced skills of a non-technician nature.

Stream 4 (Other skilled): All other skilled trade and vocational courses relevant to basic principles, skills or knowledge but which are not included in Stream 3. It includes short training courses in additional on-the-job skills.

Stream 5 (Preparatory): All courses which can be broadly described as preparatory (matriculation and diploma entrance courses), remedial (mathematics, English for migrants, etc), and courses with vocational orientation not classified elsewhere.

Stream 6 (Adult education): All courses in home handicrafts, hobbies, self-expression and cultural appreciation.

Teachers and Students

Particulars of staff and enrolments at government technical and further education colleges and associated teaching centres in recent years are shown in the next table. Enrolments represent the number of students enrolled in one or more courses during the whole or any part of the year, with students enrolled in more than one course being counted once for each course. At least one class attendance was required before the enrolment was registered.

Technical and Further Education Colleges, N.S.W.: Staff Effort and Students

Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
			Staff *(a)*			
Teaching —						
Full-time	4,676	4,982	5,146	5,202	5,325	5,433
Part-time	6,665	7,065	7,671	7,947	8,604	8,646
Non-teaching	2,985	2,965	3,255	3,399	3,728	3,750
			Enrolments			
Males	163,123	171,979	181,193	197,357	197,062	198,638
Females	140,500	153,778	165,838	190,979	194,659	203,934
Total enrolments	**303,623**	**325,757**	**347,031**	**388,336**	**391,721**	**402,572**

(a) Staff numbers are estimates based on a sample week collection in August of each year.

Female enrolments exceeded male enrolments for the first time in 1986. The proportion of females has risen from 46.3 per cent in 1981 to 50.7 per cent in 1986.

A classification of enrolments at TAFE colleges by school of instruction and stream of study for 1986, is given in the next table.

Technical and Further Education Colleges, N.S.W.: Enrolments by School of Instruction and Stream of Study, 1986

School of Instruction	*Stream of study* 1. Profess-ional	2. Para-profess-ional	3a. Appren-ticeship trades	3b. Post-trade	4. Other skilled	5. Preparatory	6. Adult education	*Total*
Applied electricity	138	482	7,011	2,467	1,510	524	9	12,141
Applied science	—	1,909	—	21	317	1,256	—	3,503
Art and design	—	5,201	—	—	6,554	—	3,067	14,822
Automotive and aircraft engineering trades	—	56	6,717	2,375	1,154	55	1,402	11,759
Biological sciences	120	2,802	—	—	1,922	93	92	5,029
Building	—	4,980	7,709	381	6,303	18	1,444	20,835
Business and administrative studies	201	55,620	—	—	7,293	70	—	63,184
Civil engineering	—	3,994	—	—	309	—	—	4,303
Electrical engineering	—	8,120	—	—	22	300	—	8,442
Engineering trades	197	335	7,502	6,415	9,604	732	231	25,016
Fashion	10	29,915	—	—	2,229	31	529	32,714
Food	—	955	3,170	127	6,262	—	—	10,514
Footwear	—	8	127	—	45	—	—	180
General studies *(a)*	178	1,832	—	—	5,465	48,486	3,724	59,685
Graphic arts	—	422	1,103	102	650	—	421	2,698
Hairdressing	—	—	3,062	477	25	45	14	3,623
Home science	—	500	—	—	17,771	992	35	19,298
Mechanical engineering	—	4,234	—	—	1,072	—	—	5,306
Navigation	912	2,079	—	—	3,292	—	306	6,589
Plumbing and sheetmetal	—	250	2,674	1,373	700	—	54	5,051
Rural studies	—	2,070	2,060	—	9,641	170	592	14,533
Secretarial studies	671	5,752	—	—	33,466	14	—	39,903
Textiles	—	424	122	—	1,098	—	28	1,672
Vehicle trades	—	53	2,709	1,913	730	—	39	5,444
Other *(b)*	8	—	—	—	1,355	24,959	6	26,328
Total enrolments	**2,435**	**131,993**	**43,966**	**15,651**	**118,789**	**77,745**	**11,993**	**402,572**

(a) Includes students in general education courses. *(b)* Students in courses that cannot be allocated to a school.

Details of students in the 6 streams of study in recent years are given in the next table.

Technical and Further Education Colleges, N.S.W.: Enrolments by Stream of Study

Stream of study		*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
1. Professional	No.	1,362	1,158	1,333	1,866	2,008	2,435
	per cent	*0.4*	*0.4*	*0.4*	*0.5*	*0.5*	*0.6*
2. Para—professional	No.	75,765	76,976	*(a)*107,274	120,469	127,882	131,993
	per cent	*25.0*	*23.6*	*30.9*	*31.0*	*32.6*	*32.8*
3a. Apprenticeship trades	No.	50,428	51,916	47,813	43,911	41,462	43,966
	per cent	*16.6*	*15.9*	*13.8*	*11.3*	*10.6*	*10.9*
3b. Post-trade	No.	11,644	13,208	13,449	16,169	17,076	15,651
	per cent	*3.8*	*4.1*	*3.9*	*4.2*	*4.4*	*3.9*
4. Other skilled	No.	106,950	110,321	*(a)*98,452	111,629	109,809	118,789
	per cent	*35.2*	*33.9*	*28.4*	*28.7*	*28.0*	*29.5*
5. Preparatory	No.	40,026	56,812	67,275	81,336	80,650	77,745
	per cent	*13.2*	*17.4*	*19.4*	*20.9*	*20.6*	*19.3*
6. Adult education	No.	17,448	15,366	11,435	12,956	12,834	11,993
	per cent	*5.7*	*4.7*	*3.3*	*3.3*	*3.3*	*3.0*
Total enrolments	**No.**	**303,623**	**325,757**	**347,031**	**388,336**	**391,721**	**402,572**
	per cent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

(a) Fashion courses, involving approximately 20,000 students, were transferred from Stream 4 to Stream 2 in 1983.

The majority of students enrol each year for part-time attendance. This is shown in the following table.

Technical and Further Education Colleges, N.S.W.: Enrolments by Type of Enrolment

Type of enrolment		*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Full-time	No.	24,902	21,260	24,745	30,022	24,476	22,614
	per cent	*8.2*	*6.5*	*7.1*	*7.7*	*6.3*	*5.6*
Part-time	No.	263,909	285,440	296,693	329,125	336,633	342,054
	per cent	*86.9*	*87.6*	*85.5*	*84.8*	*85.9*	*85.0*
External	No.	14,812	19,057	25,593	29,189	30,612	37,904
	per cent	*4.9*	*5.9*	*7.4*	*7.5*	*7.8*	*9.4*
Total enrolments	**No.**	**303,623**	**325,757**	**347,031**	**388,336**	**391,721**	**402,572**
	per cent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Commonwealth Government Assistance for Technical and Further Education

Since the Commonwealth Government's schemes of assistance for technical and further education came into operation in 1974, there have been no fees for vocational and general education courses. Students are required to pay tuition fees for non-vocational courses. Vocational courses, or segments of such courses, which are undertaken for non-vocational purposes may also incur a fee.

Details of Commonwealth Government grants to New South Wales for technical and further education are shown earlier in this chapter.

DEPARTMENT OF AGRICULTURE COLLEGES

The N.S.W. Department of Agriculture administers Murrumbidgee College of Agriculture and C.B. Alexander Agricultural College.

Certificate and advanced certificate courses in various aspects of agriculture are offered at these colleges on a full-time basis. Applicants for admission to certificate courses must be at least 16 years old and hold the School Certificate. A part-time dairy apprenticeship course for up to 40 students is also available at C.B. Alexander College. In addition, there are correspondence courses in farm management and farm office management and numerous short courses available.

TRAINING OF TEACHERS

In New South Wales, teacher education courses are provided at colleges of advanced education, universities and non-government teachers colleges. Students training as teachers (either pre-school, primary, or secondary) normally complete either:

(a) a four-year degree course (professional teacher training may be integrated within the degree course or may be undertaken as a one-year post-graduate course leading to a Diploma in Education); or

(b) a three-year Diploma of Teaching course.

Teaching methods are demonstrated within the courses and practice teaching is undertaken at selected schools.

Special courses for careers advisers, school counsellors, teacher-librarians, teachers of the deaf, remedial teachers, teachers of deaf-blind children and teachers of intellectually handicapped children are offered at some colleges of advanced education and universities. These courses are designed for teachers with several years" experience in normal classrooms.

Specialised teacher training is also provided by the N.S.W. State Conservatorium of Music.

Non-Government Teachers Colleges

Members of religious communities and lay students are trained for teaching in Roman Catholic schools in New South Wales at the *Catholic College of Education* in Sydney. It offers a four-year degree program in primary and junior secondary education, a graduate diploma in Education, and various appropriate postgraduate degrees and diplomas.

Avondale College, operated by the Seventh Day Adventist Church, offers a number of tertiary education courses including four-year courses leading to Bachelor of Education awards with primary and secondary specialisations. In 1986, the College enrolled 602 students, 310 of whom were in the School of Teacher Education.

The *Australian College of Physical Education* conducts a three-year course leading to a Diploma of Teaching for intending teachers of physical education. In 1987, the College had a total enrolment of 120 students.

ADVANCED EDUCATION

Advanced education courses are offered by colleges of advanced education (CAEs) and certain other institutions. Admission to these courses in New South Wales is generally based on the results of the Higher School Certificate examination or its equivalent. There is, however, provision for mature age or special admission. Courses, usually of a vocational and practical nature, are available in such fields as agriculture, applied science, art and design, building and architecture, commercial and business studies, engineering, liberal studies, the performing arts, paramedical studies and teacher education. Undergraduate courses lead to the award of a bachelor's degree, diploma or associate diploma and postgraduate courses lead to a master's degree or graduate diploma. Full-time, part-time and external courses are available.

Staff, Students and Courses

The following tables show particulars of advanced education staff and students in recent years. The statistics for 1981 relate only to advanced education courses conducted at colleges of advanced education. For 1982, the teaching staff statistics also include the Institute of Advanced Education within the University of Wollongong (a former CAE incorporated into the University in 1982), and the student statistics relate to all types of institutions conducting advanced education courses. For 1983 and later years, teaching staff and student statistics relate to all the above-mentioned institutions. Non-teaching staff statistics for all years relate only to CAEs.

Advanced Education, N.S.W.: Staff Effort *(a)* and Students

	At 30 April					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Staff effort *(a)* —						
Teaching	2,416	r2,649	2,657	2,684	2,901	3,148
Non-teaching	2,704	r2,584	2,591	2,803	2,839	2,963
Students —						
Full-time	18,358	19,651	20,529	21,980	24,677	27,377
Part-time	13,392	15,625	15,783	15,603	16,227	18,123
External	8,157	9,380	9,307	10,334	11,374	12,080
Total students —						
Males	19,412	22,001	22,291	23,677	24,860	26,463
Females	20,495	22,655	23,328	24,240	27,418	31,117
Persons	**39,907**	**44,656**	**45,619**	**47,917**	**52,278**	**57,580**

(a) Full-time staff plus the full-time equivalent of part-time staff.

Advanced Education, N.S.W.: Students, 1986

Institution	*At 30 April*				
			Total students enrolled		
	Full-time	*Part-time (a)*	*Males*	*Females*	*Persons*
Colleges of advanced education —					
Armidale College of Advanced Education	644	1,392	537	1,499	2,036
Catholic College of Education Sydney	1,463	1,076	801	1,738	2,539
Cumberland College of Health Sciences	1,257	817	354	1,720	2,074
Hawkesbury Agricultural College	1,068	651	902	817	1,719
Kuring-gai College of Advanced Education	1,790	1,717	1,467	2,040	3,507
Macarthur Institute of Higher Education	1,518	970	899	1,589	2,488
Mitchell College of Advanced Education	1,454	3,660	2,901	2,213	5,114
Nepean College of Advanced Education	1,514	1,360	1,360	1,514	2,874
Newcastle College of Advanced Education	2,063	1,508	1,327	2,244	3,571
New South Wales Institute of Technology	3,736	5,914	6,738	2,912	9,650
New South Wales State Conservatorium of Music	454	137	252	339	591
Northern Rivers College of Advanced Education	1,175	551	800	926	1,726
Orange Agricultural College	215	526	397	344	741
Riverina-Murray Institute of Higher Education	1,453	4,804	2,838	3,419	6,257
Sydney College of Advanced Education	4,376	2,210	1,988	4,598	6,586
Sydney College of the Arts	720	125	295	550	845
Total, colleges of advanced education	*24,900*	*27,418*	*23,856*	*28,462*	*52,318*
University of Wollongong — Institute of Advanced Education	1,082	991	815	1,258	2,073
TAFE institutions	260	1,485	1,038	707	1,745
Other institutions *(b)*	1,135	309	754	690	1,444
Total, all institutions	**27,377**	**30,203**	**26,463**	**31,117**	**57,580**

(a) Includes external students. *(b)* Mainly non-government teachers colleges and theological colleges.

Advanced Education, N.S.W.: Commencing and Total Students, 1986, and Students Completing Courses, 1985, by Course Level and Type of Enrolment

Course level	*Students enrolled at 30 April 1986*							*Students completing courses 1985*
	Commencing students (a)		*Total students*					
	Full-time	*Part-time (b)*	*Full-time*	*Part-time (b)*	*Males*	*Females*	*Persons*	
Master degree	30	168	98	547	496	149	645	71
Graduate diploma	1,248	2,301	1,334	4,893	2,857	3,370	6,227	2,827
Bachelor degree	5,368	5,502	13,072	16,733	15,709	14,096	29,805	4,434
Diploma	4,583	757	10,253	2,203	2,771	9,685	12,456	2,433
Associate diploma	1,476	2,211	2,616	5,646	4,559	3,703	8,262	1,445
Miscellaneous *(c)*	2	139	4	181	71	114	185	..
Total, all course levels	**12,707**	**11,078**	**27,377**	**30,203**	**26,463**	**31,117**	**57,580**	**11,210**

(a) Students commencing in the first semester only. *(b)* Includes external students. *(c)* Miscellaneous students who enrol in parts of courses, including single subjects, but who do not proceed to an award.

New South Wales Institute of Technology

The N.S.W. Institute of Technology provides tertiary education, with vocational emphasis, to professional level. The Institute has campuses at Broadway, the Markets and Gore Hill in Sydney.

The Institute is organised into eight faculties: Architecture and Building, Business, Engineering, Humanities and Social Sciences, Law, Life Sciences, Mathematical and Computing Sciences, and Physical Sciences. For those wishing to enter professional practice, the Institute offers undergraduate courses which lead to a bachelor degree or diploma. Post-graduate courses leading to a master's degree or graduate diploma are available in a variety of fields. Many of the courses require appropriate occupational experience concurrent with course work.

Institute courses follow the semester pattern of attendance. Besides the usual full-time and part-time programs, a *sandwich* program of alternate semesters of full-time study and full-time employment in a related field is offered.

The general requirements for admission to the Institute are based on results at the Higher School Certificate examination or its equivalent, completion of an approved certificate course of the N.S.W. Department of Technical and Further Education, adult entrance conditions, or other requirements as determined by the Academic Board.

Sydney College of AdvancedEducation

Sydney College of Advanced Education is a multi-institute, multi-campus college located in the central and south-eastern regions of Sydney. The College prepares men and women for the following careers: nursing; teaching in government and non-government schools in the areas of early childhood, primary, secondary, technical and music education; and professional roles in community and adult education. Courses are also provided in exercise science and computer studies.

The College offers programs at undergraduate and post-graduate levels. The basic admission requirement to undergraduate programs is the Higher School Certificate examination or its equivalent. Special admission requirements apply for students enrolling in some teacher education courses. Applicants for admission to Graduate Diploma in Education programs should, in general, hold an appropriate degree or diploma award. Applicants for admission to other postgraduate programs must hold a three-year diploma or its academic equivalent, or a degree award, and have had some years of relevant professional experience.

Hawkesbury Agricultural College

The Hawkesbury Agricultural College at Richmond conducts a Master of Applied Science course in Food Sciences; Bachelor of Applied Science courses in Agriculture, Environmental Health, Food Technology, Home Economics, and Horticulture; Bachelor and Diploma of Business courses in Land Economy; associate diploma courses in Agricultural Mechanisation, Animal Production, Crop Production, Food Control, Horticulture and Horse Management and graduate diploma courses in Agriculture, Family and Consumer Science, Food Sciences, and Social Communication. In addition, a Bachelor of Education course for intending teachers of home economics is offered in conjunction with the Nepean College of Advanced Education. A Diploma of Applied Science in Nursing is also offered.

General academic requirements for admission to undergraduate courses are based on the results of the Higher School Certificate examination, but there is also provision for mature age admission. Residential accommodation is available on campus for 350 students.

Orange Agricultural College

The Orange Agricultural College, a college of advanced education, offers associate diploma courses in Farm Management, Land Management, Horse Management, Farm Secretarial Studies and Horticultural Management. Most courses are offered full-time, part-time and externally. Entry to the courses is determined on the Higher School Certificate (or equivalent) examination results, although mature age applicants may be admitted on the basis of work experience, motivation and other relevant factors. The College provides on-campus accommodation for 116 students.

Mitchell College of Advanced Education

Mitchell College of Advanced Education at Bathurst offers graduate diploma, degree and diploma courses through six schools: Applied Sciences, Business and Public Administration, Communication and Liberal Studies, Nursing and Health Administration, Social Science and Welfare Studies, and Teacher Education. Full-time, part-time and external courses are available. Admission to the College is based on achievement in the Higher School Certificate or equivalent examination. Mature age applicants may be admitted on other bases. The College provides on-campus accommodation for approximately 730 students in five halls of residence, and off-campus accommodation for an additional 120 students.

Riverina-Murray Institute of Higher Education

Study at the Riverina-Murray Institute of Higher Education may be undertaken on a full-time or part-time basis at both the Riverina (Wagga Wagga) and Murray (Albury-Wodonga) campuses. Most courses are offered externally. A variety of graduate diploma, degree, diploma, and associate diploma courses are offered in the areas of agriculture, applied science, business and commerce, education, humanities, information resources, and the visual and performing arts. Admission to the Institute is normally based on the results of the Higher School Certificate, or an equivalent examination, although admission may be granted to applicants who, on the basis of maturity, motivation, work experience, etc., appear to have a reasonable prospect of success if admitted. Residential accommodation on-campus is available at Wagga Wagga.

Cumberland College of Health Sciences

The Cumberland College of Health Sciences at Lidcombe (Sydney) offers degree and diploma courses in various aspects of paramedical education. The College has 8 schools: Communication Disorders, Community Health, Medical Radiation Technology, Medical Record Administration, Nursing, Occupational Therapy, Orthoptics, and Physiotherapy, and two departments: Behavioural Sciences and Biological Sciences. The majority of courses offered are available on a full-time basis only, and a feature of most courses is the requirement for a period of clinical experience to supplement the laboratory and lecture-room instruction. Extension and special courses, embracing a wide range of subjects, are conducted by the various schools and departments each year.

Other Colleges of Advanced Education

Other institutions that have corporate status as colleges of advanced education are: Armidale College of Advanced Education, Kuring-gai College of Advanced Education, Macarthur Institute of Higher Education, Nepean College of Advanced Education, Newcastle College of Advanced Education, Northern Rivers College of Advanced Education and Sydney College of the Arts.

New South Wales State Conservatorium of Music

The N.S.W. State Conservatorium of Music provides tuition in music from elementary to advanced stages. It is located in Sydney and has a branch at Newcastle. Affiliated music centres are located at Albury, Bathurst, Gosford, Goulburn, Lismore, Lithgow and environs, Maitland, Orange, Tamworth, Wagga Wagga and Wollongong. Approved advanced education courses include: Master of Music (Performance), Graduate Diploma courses in Educational Studies (Primary Music), Accompaniment, Opera and Repetiteur; four-year full-time Bachelor of Music and Bachelor of Music Education courses; two-year full-time courses leading to an Associate Diploma in Church Music (also available on a four-year part-time basis), an Associate Diploma in Jazz Studies and an Associate Diploma in Music Teaching; and three-year full-time courses leading to a Diploma in Operatic Art and a Diploma of the State Conservatorium of Music. In addition to the approved courses, the Conservatorium provides courses in piano tuning, extension study courses in musicianship and jazz, and individual instruction in a range of instruments, and voice.

UNIVERSITIES

There are 6 universities in New South Wales: the University of Sydney; the University of New South Wales; the University of New England; the University of Newcastle; Macquarie University; and the University of Wollongong. The general matriculation requirements for undergraduate admission to universities in New South Wales are based on a candidate's performance at the Higher School Certificate, or equivalent, examination. There is also provision for mature age or special admission.

The University of Sydney

The University of Sydney awards the degree of bachelor in each of its eleven faculties: Agriculture, Architecture, Arts, Dentistry, Economics, Education, Engineering, Law, Medicine, Science and Veterinary Science. Degrees of bachelor are also awarded through boards of studies in Music and Social Work and, as a postgraduate degree, in Divinity. Postgraduate study leading to a variety of diplomas and the degree of master may be undertaken in all faculties and boards of studies whilst all faculties offer the degree of Doctor of Philosophy.

Full-time and part-time courses are available but opportunities for evening study are limited.

Medical students attend 7 metropolitan hospitals (Royal Alexandra, Royal Prince Alfred, Royal North Shore, Repatriation General Hospital Concord, Lidcombe Hospital, St. Margaret's and Westmead) for instruction and practical training during the clinical years of the medical course.

The Centre for Continuing Education provides a range of classes for both the general public and specific graduate/professional groups.

University of New South Wales

The University of New South Wales is situated at Kensington (Sydney). Under an agreement with the Commonwealth Government, the University established a University College at the Australian Defence Force Academy in 1986.

There are eleven faculties within the University: Applied Science, Architecture, Arts, Biological Sciences, Commerce, Engineering, Law, Medicine, Military Studies, Professional Studies, and Science and three Boards of Studies — the Australian Graduate School of Management, General Education, and Science and Mathematics. Degrees of bachelor are awarded in each of the faculties and degrees of master or doctor on completion of post-graduate studies. Post-graduate diplomas are awarded in specified courses.

Many of the undergraduate courses in Science, Applied Science, and Engineering are designed so that students maintain a close link with industry in the practical aspects of the profession for which the particular course is intended. An approved period of suitable industrial experience is required as a supplement to the academic training.

Most undergraduate courses can be undertaken on either a full-time or a part-time basis. The only external course is conducted by the School of Health Administration in the Faculty of Professional Studies; the course leads to the award of Bachelor of Health Administration.

Medical students attend Prince Henry, Prince of Wales, St George, St Vincent's, Lewisham, Bankstown, Canterbury, Royal South Sydney, Rozelle, and Sutherland Hospitals during the clinical years of the medical course.

The Continuing Education Support Unit provides support for the schools and faculties of the University in the planning and presentation of continuing education courses.

University of New England

The University of New England is situated at Armidale in the Northern Tablelands about 550 kilometres north of Sydney. It has six faculties: Arts, Economic Studies, Education, Resource Management, Rural Science, and Science. All faculties award bachelor, master and doctoral degrees as well as postgraduate diplomas.

A high proportion of the University's students enrol externally although they are required to attend short, intensive residential schools. External students may undertake courses of study leading to the award of bachelor degrees in Arts, Economics, Education, Social Science, and Urban and Regional Planning, as well as higher degrees and postgraduate diplomas in the faculties of Arts, Economic Studies, Education, and Resource Management.

The University is largely residential with the majority of internal students living in the seven residential colleges on campus. External students attending residential schools also normally stay in the residential colleges. Non-collegiate accommodation is available in 32 multiple-occupancy flats on campus.

The University provides a variety of Continuing Education activities directed mainly at people living in the north of N.S.W.

University of Newcastle

The eight faculties of the University of Newcastle are Architecture, Arts, Economics and Commerce, Education, Engineering, Mathematics, Medicine, and Science. Degrees of bachelor are awarded in each of these faculties, and in all of them students may proceed to the higher degree of master or doctor. Post-graduate diploma courses are offered in Clinical Epidemiology, Coal Geology, Computer Science, Economic Studies, Education, Industrial Engineering, Industrial Relations, Management, Mathematical Studies, Medical Statistics, Surveying and Taxation Studies.

Accommodation is available for 225 students in the University's hall of residence.

Macquarie University

Macquarie University at North Ryde (Sydney) has eleven schools: Behavioural Sciences; Biological Sciences; Chemistry; Earth Sciences; Economic and Financial Studies; Education; English and Linguistics; History, Philosophy, and Politics; Law; Mathematics, Physics, Computing and Electronics; and Modern Languages. In addition to these schools the University has two interdisciplinary centres: the Centre for Environmental and Urban Studies and the Graduate School of Management.

Bachelor degrees are awarded in Arts, Economics, Law, Legal Studies and Science. External Law students receive the degree of Bachelor of Legal Studies and full-time Law students receive the combined degrees of Bachelor of Laws and Bachelor of Arts, Economics or Science. The Diploma of Education course may be taken concurrently with a Bachelor of Arts, Economics or Science degree course.

The degree of Doctor of Philosophy and honours masters' degrees by research are available at all schools and centres. Masters' degrees by course work and graduate diplomas are also offered.

University of Wollongong

The University of Wollongong offers courses of study leading to the degrees of Bachelor of Applied Science, Arts, Commerce, Creative Arts, Education, Engineering, Engineering/Commerce, Environmental Science, Information Technology and Communication, Mathematics, Mathematics/Engineering, Science and Science/Engineering. The Diploma of Applied Science (Nursing) commenced in 1985. Graduates may undertake studies leading to a higher degree in any branch of learning with which the University is concerned, with special emphasis placed on published work. Postgraduate courses include doctoral degrees, honours masters' degrees, masters' degrees and graduate diplomas.

The University also offers associate diplomas in various fields and external conversion courses in teacher education.

Staff and Students of Universities

Particulars of the staff of the universities in New South Wales in recent years are given in the following table.

Universities in N.S.W.: Staff Effort *(a)* by Activity and Type of Employment

	At 30 April					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Full-time —						
Academic	4,525	4,458	4,362	4,484	4,498	4,610
General	7,211	7,064	7,143	7,063	7,317	7,449
Part-time *(a)* —						
Academic	547	480	456	486	479	503
General	388	388	380	360	399	493
Total staff effort	**12,672**	**12,389**	**12,341**	**12,392**	**12,692**	**13,055**

(a) Expressed as a full-time equivalent.

Further details on staff at Universities in New South Wales are shown in the 1986 issue of the New South Wales Year Book, page 173.

The next three tables give details of students enrolled at universities. In these tables, students enrolled in more than one course are allocated to the course with the greatest student load.

Universities in N.S.W.: Students

	At 30 April					
University	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
University of Sydney	17,805	17,983	18,404	18,248	18,225	18,070
University of New South Wales	18,844	19,016	18,376	18,036	18,350	18,989
University of New England	8,914	8,899	8,743	8,808	8,800	9,561
University of Newcastle	4,391	4,273	4,435	4,944	5,236	5,418
Macquarie University	10,489	10,735	11,065	11,133	11,573	11,585
University of Wollongong	3,089	3,246	3,498	4,354	4,534	5,310
Total, all universities						
Males	37,931	37,728	37,727	37,953	38,091	38,778
Females	25,601	26,424	26,794	27,570	28,627	30,155
Persons	**63,532**	**64,152**	**64,521**	**65,523**	**66,718**	**68,933**

Universities in N.S.W.: Students by Course Level and Type of Enrolment, 1986

Particulars	*University of Sydney*	*University of New South Wales*	*University of New England*	*University of Newcastle*	*Macquarie University*	*University of Wollongong*	*Total, all universities*		
							Males	*Females*	*Persons*
Higher degree —									
Full-time	1,328	1,245	221	222	301	136	2,327	1,126	3,453
Part-time	2,203	2,154	87	231	1,287	231	3,894	2,299	6,193
External	26	114	916	—	14	—	738	332	1,070
Total, higher degree	*3,557*	*3,513*	*1,224*	*453*	*1,602*	*367*	*6,959*	*3,757*	*10,716*
Bachelor degree —									
Full-time	12,268	11,662	2,391	3,020	4,306	2,841	21,001	15,487	36,488
Part-time	1,245	2,314	138	1,575	3,494	1,527	5,341	4,952	10,293
External	—	423	4,410	—	1,269	—	2,597	3,505	6,102
Total, bachelor degree	*13,513*	*14,399*	*6,939*	*4,595*	*9,069*	*4,368*	*28,939*	*23,944*	*52,883*
Non-degree —									
Full-time	380	293	221	115	35	124	546	622	1,168
Part-time	620	724	77	255	495	451	1,466	1,156	2,622
External	—	60	1,100	—	384	—	868	676	1,544
Total, non-degree	*1,000*	*1,077*	*1,398*	*370*	*914*	*575*	*2,880*	*2,454*	*5,334*
All course levels —									
Full-time	13,976	13,200	2,833	3,357	4,642	3,101	23,874	17,235	41,109
Part-time	4,068	5,192	302	2,061	5,276	2,209	10,701	8,407	19,108
External	26	597	6,426	—	1,667	—	4,203	4,513	8,716
Total students	**18,070**	**18,989**	**9,561**	**5,418**	**11,585**	**5,310**	**38,778**	**30,155**	**68,933**

Universities in N.S.W.: Students in Bachelor Degree Courses by Field of Study

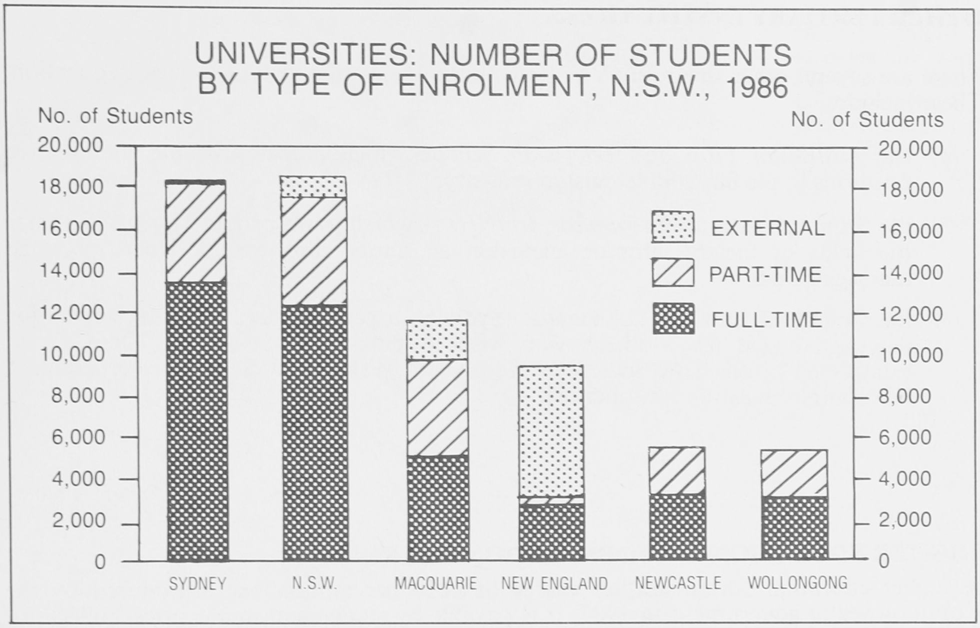
Field of Study	*At 30 April*					
	1981	*1982*	*1983*	*1984*	*1985*	*(b)1986p*
Agriculture, forestry	667	674	734	760	554	576
Architecture	1,728	1,820	1,921	1,986	1,894	1,961
Humanities	14,537	13,979	13,552	13,873	16,993	17,693
Fine arts	31	32	31	53		
Social and behavioural sciences	2,790	2,654	2,564	2,460		
Dentistry	550	523	517	488	492	451
Economics, commerce	7,977	8,207	8,449	8,394	8,103	8,276
Education	1,450	1,451	1,434	1,343	2,163	2,127
Engineering	5,542	5,866	6,089	6,338	6,239	6,160
Law	3,740	3,759	3,764	3,640	3,645	3,519
Medicine	3,425	3,343	3,228	3,109	2,536	2,490
Sciences	6,954	6,928	7,107	7,678	8,378	8,522
Veterinary science	382	376	384	386	374	366
Not classified	6	1	3	1	2	4
Total	**49,779**	**49,613**	**49,777**	**50,509**	**51,373**	**52,145**

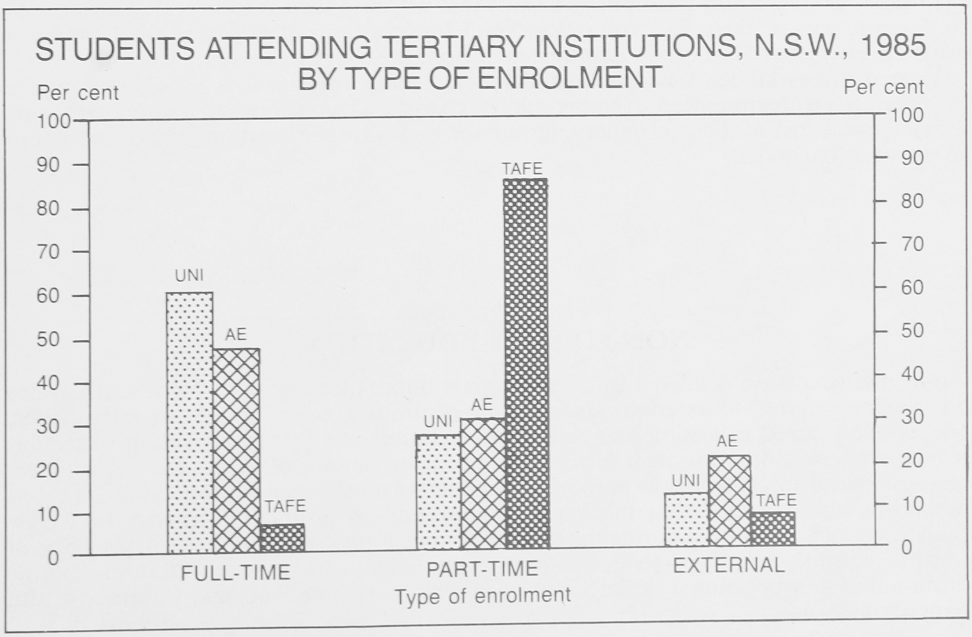
(a) Field of study statistics shown for 1985 and 1986 are not entirely comparable to those for earlier years because of internal changes in the classification. *(b)* Excludes 738 students enrolled at military establishments.

The next table shows students completing degree and post-graduate diploma courses at universities in recent years.

Universities in N.S.W.: Students Completing Degree and Post-Graduate Diploma Courses by Course Level

Course level	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Higher degrees —						
Doctorate (not Ph. D.)	16	22	16	15	16	33
Doctor of Philosophy (Ph. D.)	276	250	288	311	291	335
Master	1,119	1,069	1,250	1,471	1,498	1,483
Total, higher degrees	*1,411*	*1,341*	*1,554*	*1,797*	*1,805*	*1,851*
Post-graduate diploma	1,247	1,162	1,014	1,002	1,043	1,050
Bachelor degrees —						
Undergraduate —						
Pass	7,992	7,565	7,535	7,254	7,647	7,774
Honours	1,506	1,474	1,534	1,638	1,716	1,687
Post-graduate	101	91	110	119	102	60
Total, bachelor degrees	*9,599*	*9,130*	*9,179*	*9,011*	*9,465*	*9,521*
Total, all levels	**12,257**	**11,633**	**11,747**	**11,810**	**12,313**	**12,422**


UNIVERSITIES: NUMBER OF STUDENTS
BY TYPE OF ENROLMENT, N.S.W., 1986
No. of Students
No. of Students
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
EXTERNAL
PART-TIME
FULL-TIME
SYDNEY
N.S.W.
MACQUARIE
NEW ENGLAND
NEWCASTLE
WOLLONGONG


STUDENTS ATTENDING TERTIARY INSTITUTIONS, N.S.W., 1985
BY TYPE OF ENROLMENT
Per cent
Per cent
100
90
80
70
60
50
40
30
20
10
0
UNI
AE
TAFE
FULL-TIME
PART-TIME
EXTERNAL
Type of enrolment

OTHER TERTIARY INSTITUTIONS

There are several other institutions in New South Wales that provide tertiary education. These include:

(a) the *Australian Film and Television School,* which prepares people for creative positions in the film and television industry;

(b) the *National Institute of Dramatic Art (NIDA),* which trains people who wish to enter the fields of theatre, film or television as actors, directors, designers or stage managers; and

(c) the College of Law at St. Leonards (Sydney), a practical legal training course for newly-graduated law students who wish to practise as solicitors. The College, established by the Law Society of New South Wales, also conducts a program of continuing education for solicitors.

HIGHER EDUCATION ADMINISTRATION CHARGE

A higher education administration charge of $250 per annum was introduced by the Commonwealth government in 1987. It is payable by students at universities, colleges of advanced education, non-government teachers colleges, and in higher education courses funded by the Commonwealth. Students receiving assistance under Austudy, the postgraduate awards scheme or aboriginal assistance schemes will have the charge covered by their allowance.

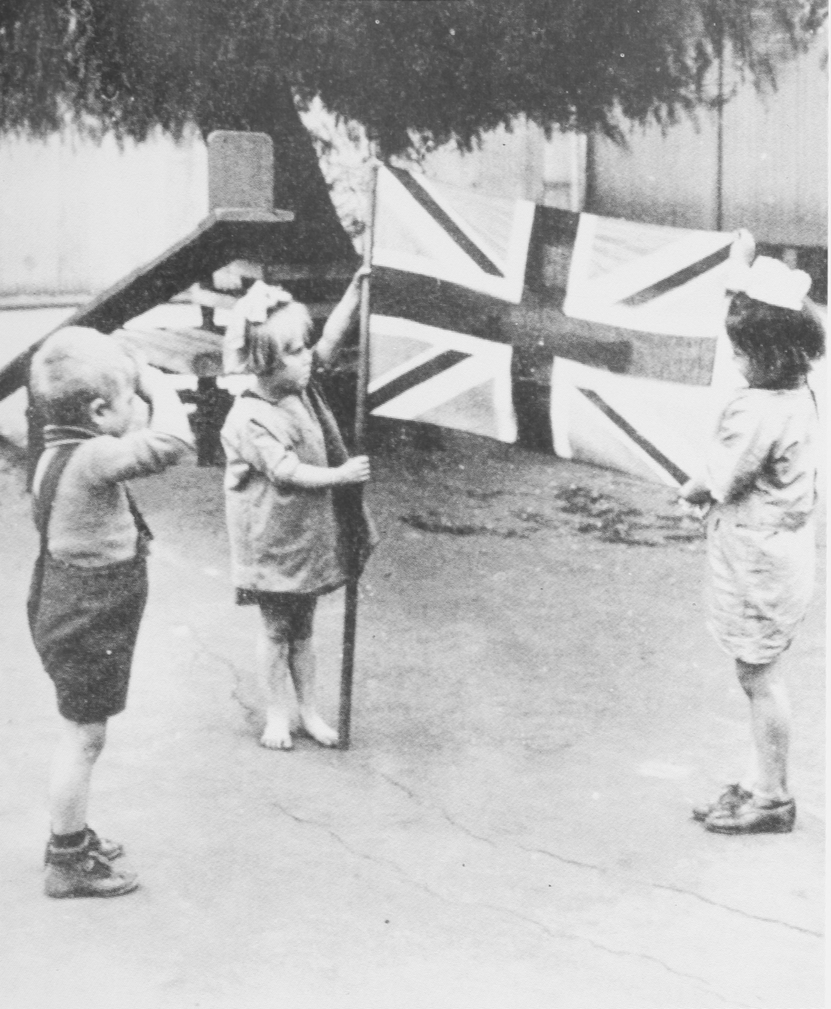
OVERSEAS STUDENTS

Australia's international education program offers students from all over the world the opportunity to obtain qualifications and skills that will help their careers and contribute to the development of their own countries. The Overseas Student Office of the Commonwealth Department of Education administers the private overseas student program.

Those overseas students whose secondary or tertiary education is subsidised by the Australian government pay an overseas student charge and are subject to a quota. Students paying the full cost of their secondary, tertiary or non-formal education are not subject to the charge or the quota.

NON-FORMAL EDUCATION

Non-formal education is offered by a very large number of agencies in New South Wales and is often referred to as adult education or continuing education. Most universities, colleges of advanced education and colleges of technical and further education offer non-credit courses in addition to their formal credit courses. Several other agencies which have been established specially for the purpose of conducting non-formal education are described later in this section. In addition, there are numerous non-government organisations in New South Wales offering tuition during the day or evening, or by correspondence in the fields of industry, commerce, public service and the arts. Many are oriented towards specific vocational or non-vocational skills. Some are eligible to receive State and Commonwealth financial assistance.

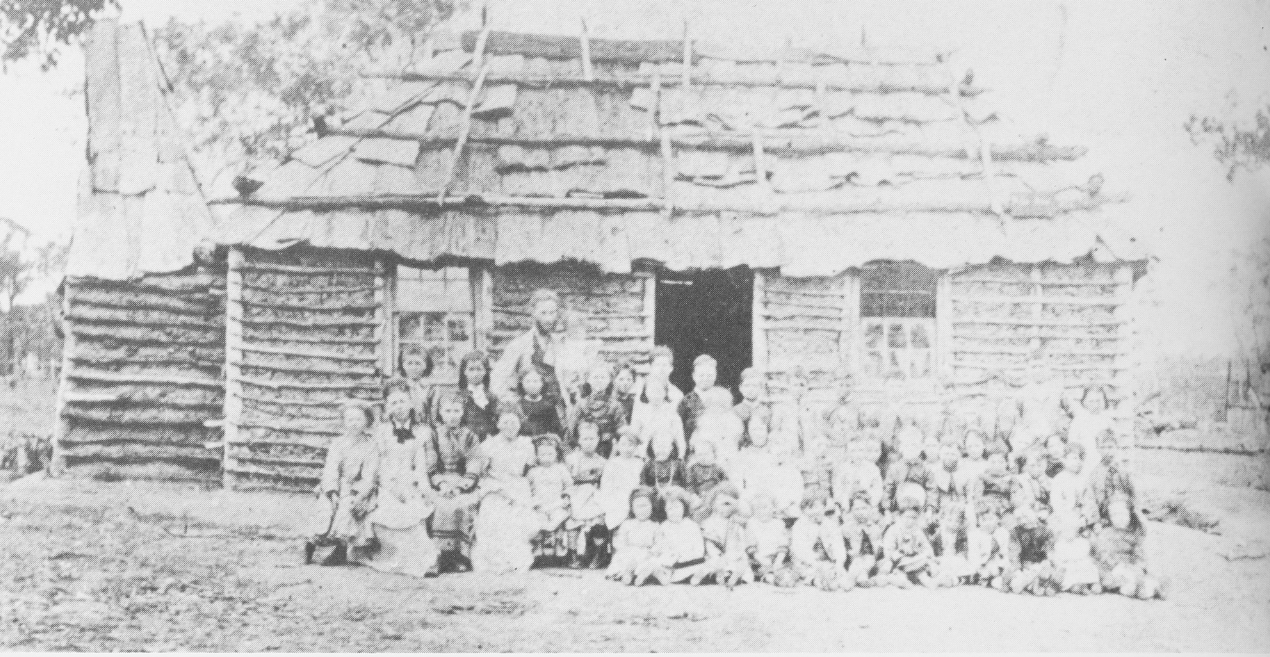


N.S.W. Government Printer

Left: Saluting the flag, Blackfriars Public School, 1923. In 1922 the Minister for Education ordered all government schools to perform flag saluting ceremonies. Pupils were required to recite the pledge, "I honour my God, I serve my King, I salute my flag." The flag was saluted and the national anthem sung. There were controversies in the 1920's about whether the ceremony was the best way to engender patriotism and it was made optional in 1931.

Below: Wambangalang Field Studies Centre, near Dubbo 1978. A number of centres have been established where students can observe flora and fauna and farm systems and receive practical experience in plant propagation and rural history.

Department of Education, N.S.W.

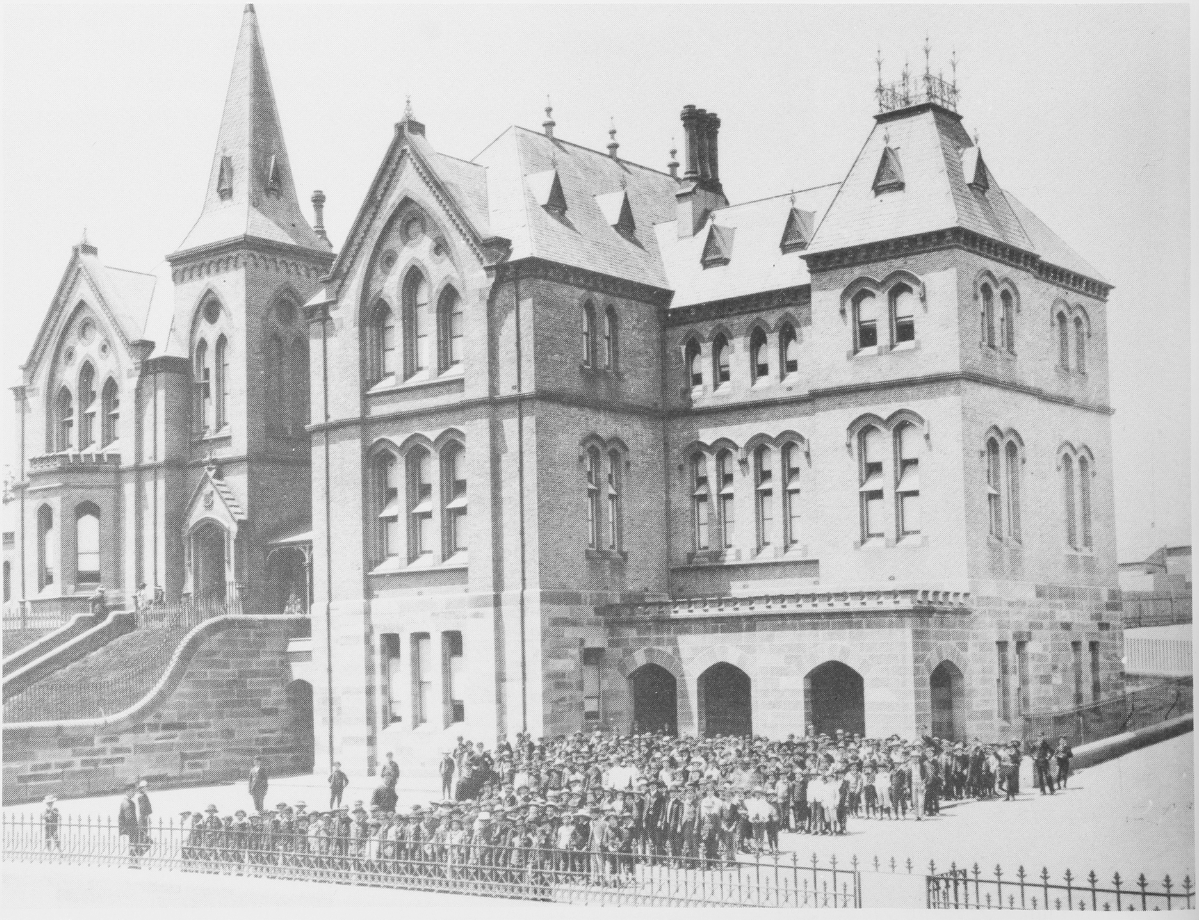


N.S.W. Department of Education

Frogmore Public School (above) was built by copper mine owners in 1875. The wattle and daub building with a bark roof measured 26 feet by 13 feet and had 60 students in 1876.

Cleveland Street Public School, founded in 1856, opened in this new building in 1868. Designed by the architect of the newly formed Council of Education, G.A. Mansfield, the school was the first of what the Council's critics called the 'palace' schools.

Archives Office of N.S.W.



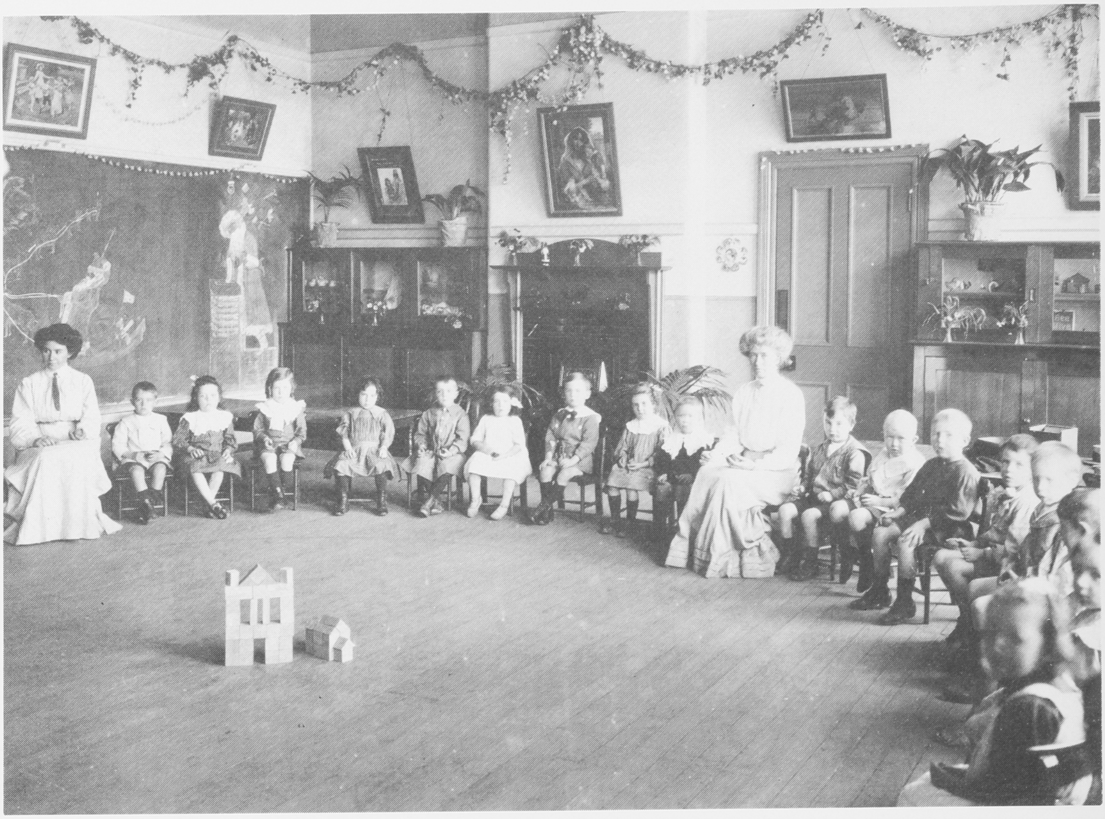
N.S.W. Department of Education

With the advent of better transport, one-teacher schools, such as at Limerick (1948) (above) were no longer necessary. It became cheaper to bus children to larger and better equipped schools. Limerick closed in 1973.

Sandy Beach Public School 1985.

Photograph By Alan Townsend, N.S.W. Public Works Department

Sandy Beach Public School 1985

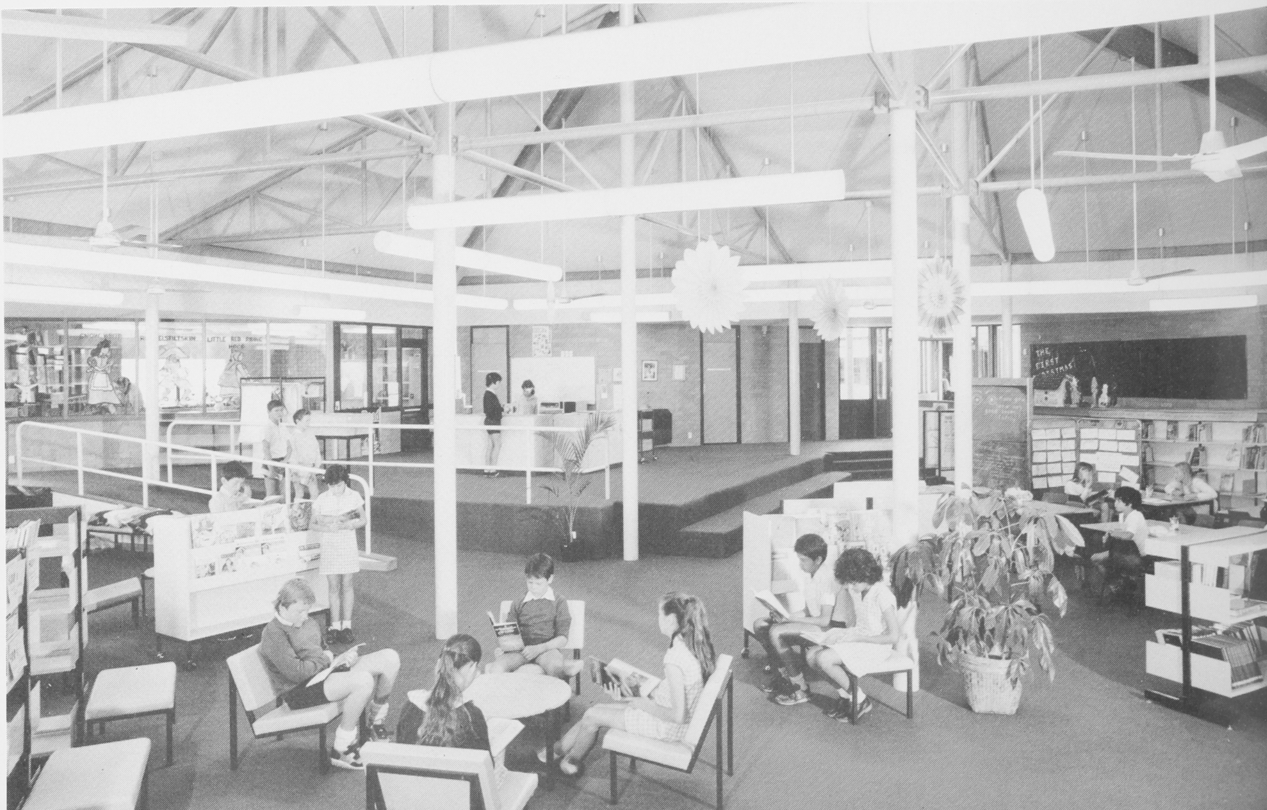


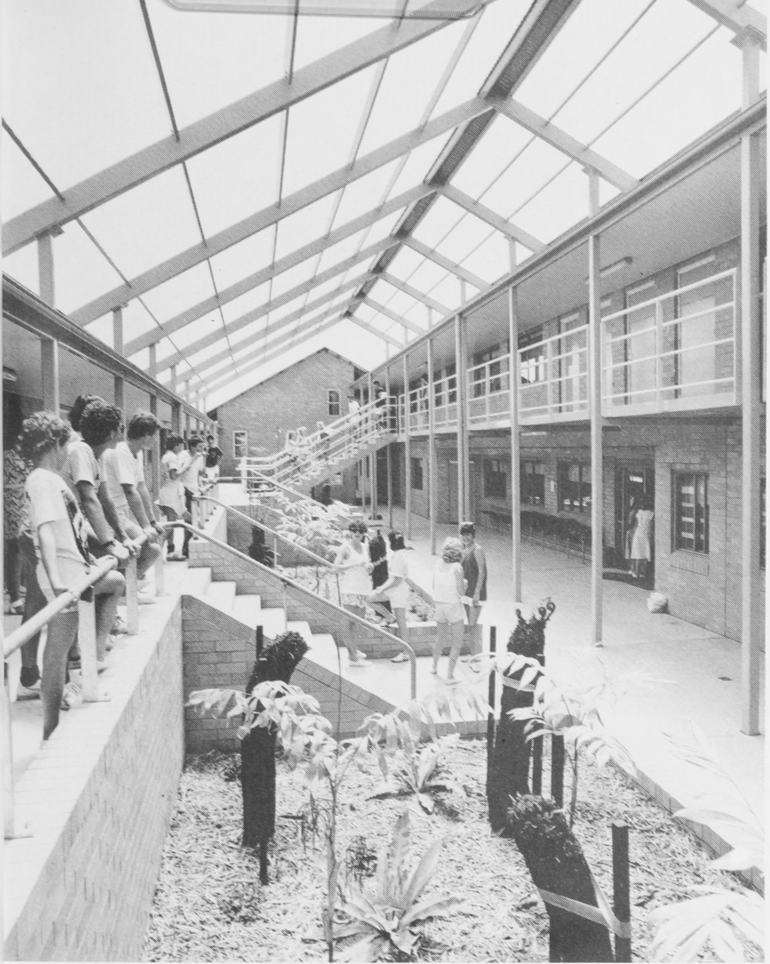
N.S.W. Government Printer

Cleveland Street Public School, 1909. Although kindergartens operated from the 1880's onward in N.S.W., their value in the formal education process was not fully accepted and basic resources such as desks, toys and teaching aids were limited. However, their developmental role was later acknowledged. The Official Year Book of New South Wales of 1915 described the purpose of kindergarten classes as being to bring "young children under refining influences".

Library, Blackwell Primary School, 1985.

Photographed by Alan Townsend, N.S.W. Public Works Department

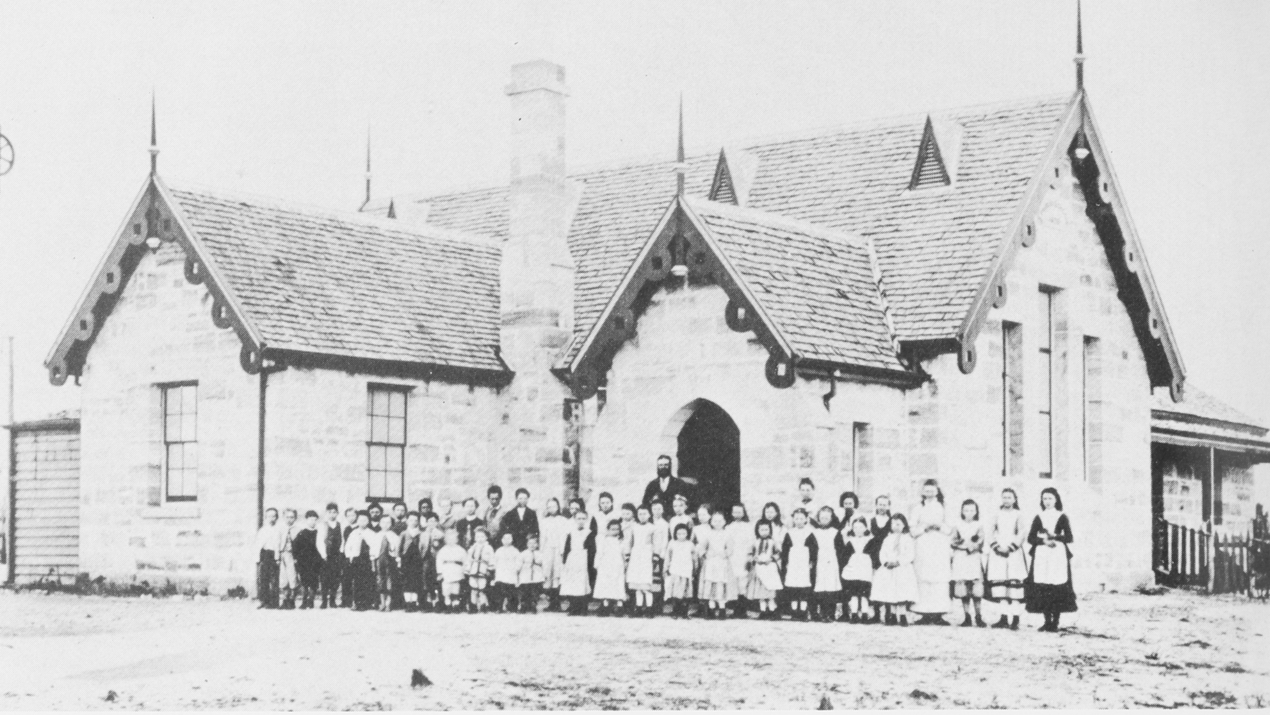



Photograph by Alan Townsend, N.S.W. Public Works Department

In recent years, school buildings have been carefully designed to suit the leisure as well as learning activities of students, and to facilitate the movement of students between classrooms. The photo (left) is of Melville High School, Kempsey, 1986.

Primary and secondary schools are equipped with electronic and audio visual equipment such as calculators, computers, television sets, videos, tape recorders and language laboratory equipment. The equipment is generally utilised as an integral part of teaching basic subjects such as English, mathematics and social studies, but students are also encouraged to develop skills in using the equipment itself. *Below:* A trainee teacher shows a primary school student how to operate a video camera, during the latter part of the 1970's.

N.S.W. Department of Education

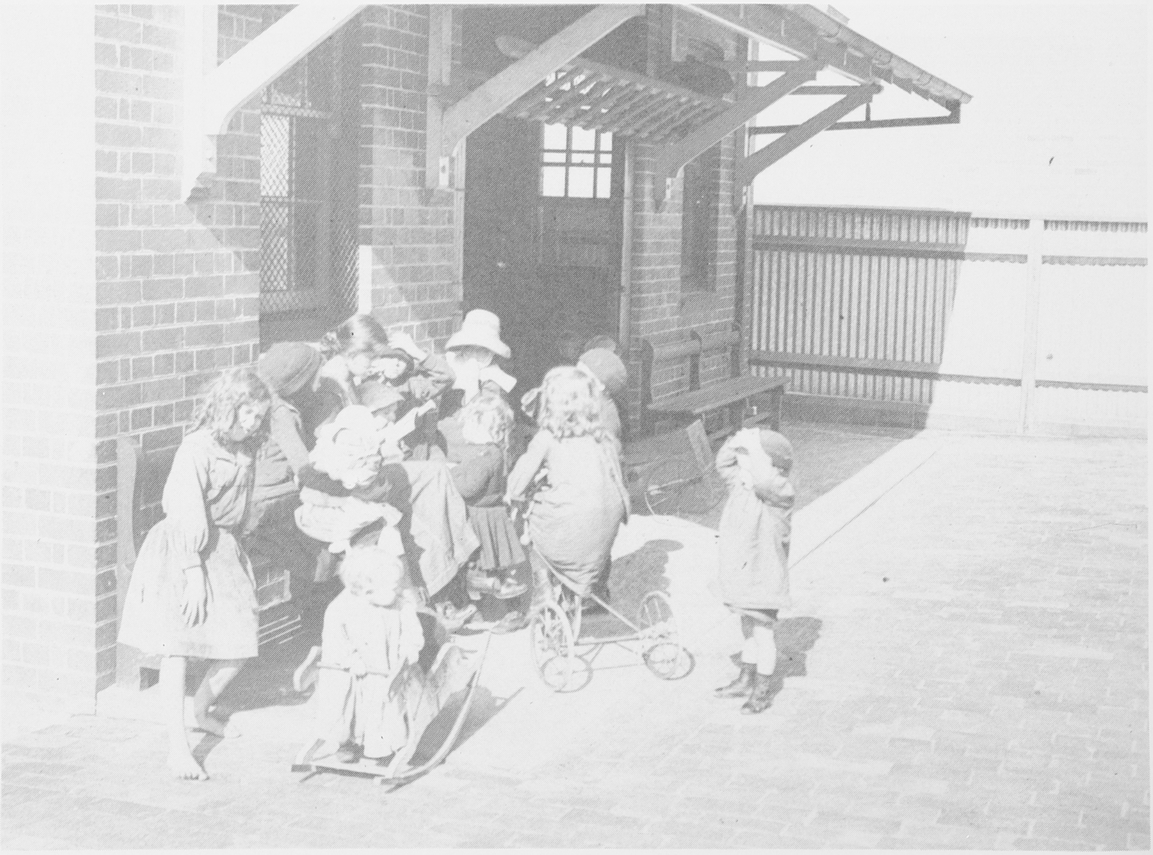


N.S.W. Department of Education

Kogarah Public School in 1880. Kogarah Public School opened in 1870 in a church, and in 1876 this stone building was opened. It was designed by G.A. Mansfield, the architect for the Council of Education.

The Free Kindergarten Union of N.S.W. was formed in 1895 and there were eight kindergartens in operation by 1909. The Miller's Point Free Kindergarten was first established at Munn Street. In 1909, that building was demolished by street widening and a new school (below) was erected in Bettington Street by the Sydney Harbour Trust.

Archives Office of N.S.W.



The N.S.W. Board of Adult Education is the government authority which has responsibility for the co-ordination, development, promotion and encouragement of adult education in the state. The New South Wales branch of the Australian Association of Adult Education is a voluntary organisation which brings together adult education agencies and personnel working in adult education for co-operative efforts.

Current priorities in the provision of adult education in the State include programs for the intellectually disabled, illiterates, migrants, Aboriginals, the socially disadvantaged, and the geographically isolated. Special funds are provided for non-formal education programs for these people.

EVENING COLLEGES

Evening colleges are administered as community organisations. The colleges are designed to meet a wide range of learning needs of adults in respect of general education, personal development and life enrichment. They use the facilities of schools of the Department of Education for this purpose.

The New South Wales Government, through the N.S.W. Board of Adult Education, provides the funds to employ the principal and other organising staff in each college and for classes for the disabled, unemployed, persons in receipt of social security benefits, and those undertaking courses in literacy. Fees charged for other classes cover the cost of teachers" salaries and associated costs.

In general, the courses of instruction provided at each college are those requested by the students enrolled. Apart from general subjects, such as English, mathematics and science, instruction is given in languages, technical and commercial subjects and a wide variety of arts and crafts.

In 1986, there were 49 Evening Colleges which conducted classes in some 200 schools, with a total enrolment of about 80,000.

COMMUNITY ADULT EDUCATION CENTRES

There were 105 community adult education centres accredited or recognised by the N.S.W. Board of Adult Education in 1986. These were conducted by community organisations formed specially for this purpose. Most of them are located in country towns, although several are in the metropolitan area.

Finance is provided to each accredited centre to employ a co-ordinator and a subsidy is given to assist in the provision of classes for disadvantaged groups. Participants in most classes pay fees which meet the cost of teachers" salaries and associated expenses. Most classes are conducted during the evenings but daytime and weekend activities are also arranged in a wide range of personal and community development topics. Enrolments in classes conducted in these centres in 1986 were approximately 56,000.

ADULT MIGRANT EDUCATION SERVICE

The (State) Ministry of Education and the Commonwealth Department of Immigration and Ethnic Affairs, through the Adult Migrant Education Service, offer programs of instruction in the English language and in aspects of life in Australia. These programs are available free of charge to adult migrants of non-English speaking backgrounds. Expenditure by the State on the programs is reimbursed by the Commonwealth Government. In 1986, the various programs catered for approximately 50,000 students.

WORKERS' EDUCATIONAL ASSOCIATION OF NEW SOUTH WALES

The Workers' Educational Association of New South Wales organises, either independently or in association with the Department of Community Programmes of the University of Newcastle and the University of Wollongong, lecture courses, tutorial classes, residential and non-residential schools, and public lectures for adults. Tutorials and lectures are mainly held in Sydney, Newcastle, Wollongong and the Central Coast region.

GOVERNMENT ASSISTANCE TO STUDENTS

STATE GOVERNMENT ASSISTANCE TO STUDENTS

Particulars of the amounts paid by the State Government, for assistance to students undergoing primary and secondary education, are given earlier in this chapter.

Allowances for Non-Government Primary School Students

Allowances for primary school students are payable by the State Government for students who are enrolled at non-government primary schools. Payment was made to the schools at an average rate in 1986 of $369 per year for each student.

Allowances for Non-Government Secondary School Students

Allowances for secondary school students are payable by the State Government for students enrolled at non-government secondary schools. Payment was made to the schools at an average rate in 1986 of $552 per year for each student.

The State Government also pays a living-away-from-home allowance for eligible students enrolled in government and non-government schools, who are required to live away from home in order to receive secondary education. A total of 2,182 students were receiving this allowance at 30 June 1986.

Textbook Allowances

The State Government pays textbook allowances for students in government and non-government secondary schools.

State Bursaries

Under the Bursary Endowment Act 1912, provision is made for State bursaries tenable at government secondary schools and non-government secondary schools registered under the Act, and at universities, colleges of advanced education, and government technical and further education colleges.

The Secondary Bursary Grant Scheme provides financial assistance to parents of children enrolled in the first 4 years of secondary schooling. The Bursary Endowment Board is responsible for the administration of the Scheme. The grants are allocated on a needs basis determined by family taxable income. There is no qualifying examination, and the only conditions involved in retaining a grant are satisfactory attendance and progress by the student. In 1986, 4,850 grants tenable for four years (Years 7 to 10) and 2,720 grants tenable for two years (Years 9 and 10) were available to students.

From 1 January 1987, payment of grants cease when the bursar reaches 16 years of age and becomes eligible for AUSTUDY grants.

University, college of advanced education, and technical and further education college bursaries, awarded on the results of the Higher School Certificate examination, are tenable for up to 7 years according to the course to be taken.

The number of students holding bursaries at 30 June 1986 was 24,379 of which 24,184 were attending courses of secondary education, 138 were attending universities, 16 were at colleges of advanced education and 41 were at other institutions.

COMMONWEALTH GOVERNMENT ASSISTANCE TO STUDENTS

Commonwealth Government outlays on education assistance schemes are shown earlier in this chapter. The schemes of assistance administered by the Commonwealth Department of Education (outlined below) are subject to review.

AUSTUDY

AUSTUDY was introduced in 1987 and replaced the Tertiary Education Assistance Scheme, the Adult Secondary Education Assistance Scheme and the Secondary Allowance Scheme.

Three categories of students are covered by AUSTUDY:

- *Secondary* — students aged 16 but under 19 undertaking full-time secondary study;
- *Adult secondary* — students aged 19 and over undertaking full-time secondary study; and
- *Tertiary* — students aged 16 and over undertaking full-time study in an approved tertiary course.

AUSTUDY assistance is income-tested. The maximum rate of allowance in 1987 was $80 per week. Tertiary students who are required to pay the Higher Education Administration charge receive an additional $250 to cover the charge.

Postgraduate Awards Scheme

A limited number of awards are made available on a competitive basis each year to students undertaking full-time postgraduate study towards masters' or Doctor of Philosophy degrees at universities and colleges of advanced education.

Scheme of Assistance for Isolated Children

This scheme provides assistance to parents of children who, because of geographic isolation or a disability, are without reasonable access to appropriate schooling. Benefits of this scheme include a boarding allowance, a correspondence allowance, and a second family home allowance.

Aboriginal Assistance Schemes

The Aboriginal Secondary Assistance Scheme and Aboriginal Study Assistance Scheme provide financial and educational assistance to Aboriginal and Torres Strait Islander students. The former encourages secondary and primary school students to stay at school and the latter provides assistance to students undertaking post-secondary studies.

Aboriginal Overseas Study Awards Scheme

Under this scheme, awards are provided for Aboriginals and Torres Strait Islanders to undertake overseas short-term programs of study, dissertation and discussion.

English for Specific Purposes Allowance

Migrants offered a place in a full-time English for Specific Purposes program at a technical college may be eligible for an allowance.

Veterans' Children Education Scheme

The Veterans' Children Education Scheme, established under the Veterans' Entitlement Act 1986, provides financial and other assistance to children of certain deceased, blind or permanently incapacitated ex-service veterans. Assistance comprises an annual education allowance for primary school children, a fortnightly education allowance for tertiary and TAFE students and additional allowances, guidance and counselling.

STUDENTS RECEIVING ASSISTANCE

The following table shows the number of students receiving selected forms of Commonwealth Government assistance, paid directly to the student or the student's family, in each of the last 6 years.

Commonwealth Government Assistance to Students, N.S.W.

	Number of students at 30 June					
Type of assistance	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Primary and secondary education —						
Secondary allowances	6,372	6,582	12,601	15,016	16,326	17,153
Assistance for isolated children —						
Boarding allowances *(a) (b)*	3,758	3,513	4,397	4,422	4,147	3,755
Correspondence allowances	495	499	638	656	635	569
Second home assistance	251	230	227	216	186	154
Tertiary education —						
Post-graduate awards	588	605	666	687	700	730
Tertiary education assistance scheme	25,224	24,529	27,962	31,288	33,909	32,345
Other education programs —						
Aboriginal study grants *(a)*	1,754	1,332	1,318	1,842	2,401	3,781
Aboriginal secondary grants	5,080	5,312	5,875	6,833	7,285	7,676
Veterans' children education scheme *(a) (c)*	950	826	882	927	875	915
Adult secondary education assistance	466	547	660	819	911	675

(a) In receipt of benefits at some stage between 1 January and 30 June. *(b)* Includes children receiving short-term boarding allowance. *(c)* Includes recipients in the Australian Capital Territory.

FURTHER REFERENCES

A.B.S. Publications (N.S.W. Office): *Pocket Year Book of New South Wales* (1302.1); *Schools* (4202.1); *Tertiary Education* (4203.1).

A.B.S. Publications (Central Office): *Reasons for Completion and Non-Completion of Secondary Education, Australia* (4214.0); *Tertiary Education, Australia* (4218.0); *National Schools Statistics Collection, Australia* (4221.0); *University and Advanced Education Student Statistics, Summary* (4222.0); *Transition from Education to Work, Australia* (6227.0); *Labour Force Status and Educational Attainment, Australia* (6235.0).

Other Publications: Annual Reports of the N.S.W. Department of Education; New South Wales Higher Education Board; N.S.W. Department of Technical and Further Education; Commonwealth Department of Education; and Triennium Reports of the Commonwealth Schools Commission and Commonwealth Tertiary Education Commission.

8

CULTURE AND RECREATION

CULTURAL INSTITUTIONS

MUSEUMS

Australian Museum

The Australian Museum in Sydney is the oldest scientific institution of its kind in Australia and the largest natural history museum in Australia. The Museum's field is natural science and anthropology (particularly of Australian Aboriginal and Pacific Island peoples), and it contains valuable collections of zoological, anthropological and mineral specimens. The Museum promotes education in natural history and anthropology through school classes, lectures, special exhibits and extension services, and the publication of scientific journals, etc. Its scientific staff conduct research into the biology and evolution of Australian fauna and into various aspects of anthropology and mineralogy. The Museum publishes original research in the fields of anthropology, geology and zoology in the *Records of the Australian Museum* and also produces a quarterly magazine, *Australian Natural History*. A large and comprehensive natural history library is attached to the institution. The Museum's total gross outlays in 1985-86 were $10.5m.

Museum of Applied Arts and Sciences

The Museum of Applied Arts and Sciences in Sydney contains extensive collections in the areas of decorative arts, applied sciences and technology. It has five venues: the Powerhouse Museum stages 1 and 2, the Mint, Hyde Park Barracks and Sydney Observatory.

Stage 2 of the Powerhouse in Ultimo is the largest museum in the southern hemisphere. Housed in a former power station built in 1899, the museum displays over 30 exhibitions from the applied arts, science, technology and social history collections dating from the late 19th century. It contains a display area of 16,000 square metres, learning centres and two theatres.

Stage 1 of the Powerhouse Museum is a temporary display space housed in the former Ultimo tram depot.

The Mint, one of the oldest public building in Australia, houses the most significant collection of stamps, coins and flags in New South Wales. The Hyde Park Barracks is a beautiful Georgian building designed by Francis Greenway. This former convict barracks now houses displays on the social history of New South Wales featuring convict life, colonial Sydney, suburban development and house styles, and the migrant community in Sydney.

Sydney Observatory, located at Observatory Hill, is now a museum of astronomy. Its colonial buildings, constructed of local sandstone, have recently undergone a major restoration. The observatory features special night viewings of the sky for the public.

Total gross outlays by the Museum of Applied Arts and Sciences in 1985-86 were $25m.

Geological and Mining Museum

The Geological and Mining Museum in Sydney houses collections of rocks, minerals and fossils totalling over 100,000 specimens. Exhibits show how minerals are formed and how they are transformed by man into useful materials, as well as the impact of minerals on society and the economy. High technology exhibits feature a walk-through volcano and working mines.

Manuscript of this chapter prepared in May 1987.

Museum staff identity rock, mineral and fossil specimens free-of-charge and provide a range of education services to both school and public groups. The Museum, part of the New South Wales Department of Mineral Resources, is currently undergoing a major redevelopment as a bicentenary project.

LIBRARIES

The State Library of New South Wales

The State Library of New South Wales, which includes the General Reference Library, the Mitchell and Dixson Libraries and the State Film Library, is the public reference library for the State of New South Wales, serving individuals, researchers, community groups, business, industry, media and government.

Information is provided about Australian and overseas publications, Australian and South-West Pacific original materials (e.g. manuscripts, maps and pictures) and documentary films and videos. In addition, specific factual information is provided and detailed research is undertaken into topics of practical application for example, new technologies, markets, plant and animal breeding, social, political and economic matters.

The Library is particularly strong in Australiana, applied science and technology, government publications, patents, standards, bibliography, periodicals and newspapers. Research and reference services are undertaken from printed and on-line resources. Loans are made through other libraries in Australia and overseas.

The Library also provides consultancy services to other libraries on behalf of special target groups such as the aged, disabled, ethnic and adult education groups.

The Library contains well over 2,000,000 items. Expenditure (excluding loan expenditure) on the Library during 1985-86 amounted to $20m including subsidies of $11m to local public libraries in N.S.W. At 30 June 1986 the staff of the State Library numbered 304.

Public Library Services

At 30 June 1986, public library services were provided by 170 local councils in New South Wales. Only 6 local councils did not provide a library service.

Public libraries in New South Wales receive most of their funding through local government, but the State Government provides some financial support. State Government subsidy and grants are administered by the Library Council of New South Wales, through the Public Libraries Department of the State Library of New South Wales.

In 1985-86, the State subsidy to local government authorities providing a library service was $1.60 per head of population, on a dollar for dollar basis. The total subsidy payment was $8.7 million. In addition, State special grant and interest subsidy payments totalling $2.0 million were made. Expenditure by local government authorities on public library services totalled $68m in 1985-86 (including State government assistance).

At 30 June 1986, approximately 10 million book and non-book items were held in public libraries in New South Wales. Approximately 35 per cent of the State's population were registered as members of public libraries at that date.

University Libraries

The library of the University of Sydney comprises the central collection, housed in the Fisher Library, and 15 branch libraries. In 1986, the University library contained 2,469,000 bound volumes and 804,000 volumes in microform.

The University of New South Wales maintains a central library and associated specialist libraries. In 1986, the University's collection contained 1,306,000 items.

In 1986, the University of New England's Dixson Library contained 600,000 volumes, the University of Newcastle's library, 500,000 volumes, Macquarie University's library, 754,000 volumes and the University of Wollongong's library, 346,000 volumes.

Other Libraries

The Parliamentary Library contains approximately 160,000 books and periodicals. It has a special legislative information service for members of Parliament, based on extensive files of newspaper articles, microforms, and video cassettes. Television and radio monitoring services are also provided.

The Royal Blind Society of N.S.W. provides a free library service to visually impaired and blind people throughout New South Wales and the Australian Capital Territory. The Society maintains a Talking Book Library consisting of 4,500 titles and a Braille Library with 5,000 titles. It also provides magazines in braille, moon, large print and on cassette, and braille and taped material for individual needs, with an emphasis on student and vocational requirements.

ART GALLERIES

Art Gallery of New South Wales

The Art Gallery of New South Wales contains the State's principal collection of works of art. These include a large and comprehensive collection of Australian paintings, drawings, prints, photographs, sculptures and ceramics, a number of European paintings and prints, etc (chiefly 16th to 20th century British and French), and examples of Oriental art and Australian Aboriginal and other tribal art. The Gallery holds frequent special exhibitions of works entered in major art competitions and works from other collections, etc. The State Government provided the Gallery with an endowment of $330,000 in 1985-86 for the purchase of works of art and also made a contribution of $400,000 to the Art Gallery of New South Wales Foundation.

The State government has also provided funding for a major new extension to the gallery to provide display space for collections of Asian, European 20th century and contemporary art, and prints, drawings and photography. The extension is due to open in February 1988 as part of the state's bicentennial program.

HERITAGE ORGANISATIONS

The National Trust of Australia (New South Wales)

The National Trust of Australia (N.S.W.) was established in 1945 and incorporated by the National Trust Act 1960. Its main objectives include:

- *(a)* to acquire, protect and preserve for the benefit of the public, lands and buildings of historic, scientific, architectural or cultural interest;
- *(b)* to safeguard natural features and scenic landscape and conserve the landscape, and;
- *(c)* to encourage and promote public appreciation, knowledge and enjoyment of these things.

The Trust reports annually to the Minister for the Arts, however its policies and activities are determined independently by its own council. The majority of councillors are elected by the membership. At 30 June 1986 the Trust had 33,683 members.

Legislation to protect Australian heritage was incorporated into the *Australian Heritage Commission Act 1977* and the Heritage Act 1979. The latter established the New South Wales Heritage Council, on which the Trust has a statutory position. Further details on the Council are included in Chapter 11 "Land Use".

The Trust currently owns and maintains forty properties. Eighteen of these are open to the public as historic house museums, art museums and sites of importance to Australia's heritage. Trust properties open to the public include: Experiment Farm Cottage, Parramatta, a cottage built c1835 on land earlier farmed by James Ruse; Old Government House, Parramatta, a country retreat for early governors, built 1799-1816; National Trust Centre, 1815, incorporating the S.H. Ervin Gallery, Observatory Hill, Sydney; and the Norman Lindsay Gallery and Museum, Springwood.

The National Trust Register is a list of buildings, places and items that are classified by the Trust as having aesthetic, historic, scientific or social significance or other special value for future generations as well as for the present community. The Register is continually updated by the Trust and currently contains over 7,000 entries. The Register is designed to alert authorities, property owners and the public so that those concerned may adopt measures to conserve the qualities which prompted the classification.

Historic Houses Trust

The Historic Houses Trust is a statutory authority responsible to the Minister for Planning and Environment. The Trust was formed in 1980 with the purpose of managing and maintaining State government owned museum houses for the education and enjoyment of the public.

The Trust presently owns five houses.

Properties open to the public are: Elizabeth Bay House, a colonial mansion dating from 1835; Vaucluse House, a building of Gothic style commenced in 1803 and the home of William Charles Wentworth from 1827 to 1853; and Elizabeth Farm, commenced in 1793 and the home of John and Elizabeth Macarthur. Lyndhurst, Glebe is currently being restored and Meroogal, Nowra has recently been acquired. Total current and capital expenditure by the Trust in 1985-86 was $2.2m.

Royal Australian Historical Society

The Royal Australian Historical Society was established in Sydney in 1901 as a non-profit organisation which promotes public awareness of and the study of Australian history at both national and local levels. With the assistance of the State government, the Society extends facilities to regional historical and genealogical societies, historians and the public. The Society has over 230 affiliated societies throughout New South Wales which operate local museums and research local histories and biographies.

SYDNEY SYMPHONY ORCHESTRA

The Sydney Symphony Orchestra is one of six Australian orchestras maintained and administered by the Australian Broadcasting Corporation. The Orchestra receives subsidies from the N.S.W. Government and the City of Sydney. The Orchestra contains 96 regular musicians, augmented when necessary.

SYDNEY OPERA HOUSE

The Sydney Opera House at Bennelong Point, comprises a concert hall to seat 2,690, an opera theatre to seat 1,547, a drama theatre to seat 544, a playhouse/cinema to seat 419, a multi-purpose recording studio to seat 300, a reception hall to seat 150, an exhibition hall, a library, and three restaurants. Performances presented in the complex include orchestral and chamber music concerts, opera, ballet, drama, choral works, jazz, pop and folk concerts, recitals, films and variety shows. During the year ended 30 June 1986 there were 5,010 performances and events (excluding outdoor events) at the Opera House, with a total attendance of about 1,300,000. The Opera House is managed by the Sydney Opera House Trust and, at 30 June 1986, had a permanent staff of 288. Apart from its functions as a performing arts centre, the building provides facilities for multilingual conferences and conventions.

AUSTRALIA COUNCIL

The Australia Council is a Commonwealth Government statutory authority that administers the major Commonwealth Government programs of financial assistance for the arts in Australia. Within the Council, eight specialist boards (theatre, community arts, music, literature, Aboriginal arts, crafts, design and visual arts) give advice on the needs of particular art forms and assess grant applications. Grants are made for a wide range of projects and activities, for both individuals and groups. Types of assistance include grants to individual artists for study in Australia and overseas, fellowships to writers to cover living allowances and expenses, special grants for writing and research expenses, publication subsidies and grants for the training of craftsmen and the establishment of workshops. The Council also maintains several other programs in support of international activities, multicultural arts, education and the arts, youth arts, and art and working life.

RADIO AND TELEVISION

Radio and television services in Australia are operated under the *Broadcasting Act 1942* and the *Australian Broadcasting Corporation Act 1983*. These services include national radio and television services operated by the Australian Broadcasting Corporation, ethnic radio and multicultural television stations operated by the Special Broadcasting Service, commercial radio and television stations operated by companies under licence, and public radio stations operated by corporations under licence on a non-profit basis.

The Commonwealth Department of Communications provides advice to the Minister on broadcasting policy matters and is responsible for the planning and engineering functions associated with radio and television services in Australia.

AUSTRALIAN BROADCASTING TRIBUNAL

Under the provisions of the *Broadcasting Act 1942,* the functions of the Tribunal are to grant, renew, suspend or revoke licences for commercial and public stations, including translator stations; to determine the program standards and advertising conditions to be observed by licensees; to determine the transmission hours of licensees; and to grant approvals and give directions in relation to changes in the ownership and control of licences. The Tribunal conducts public inquiries into the granting, renewal, suspension, and revocation of licences, the setting of standards for broadcasting practices, alleged breaches of licence conditions, and other matters as required by the Act, or as directed by the Minister. Since its formation in 1977, the Tribunal has conducted surveys and inquiries into various aspects of radio and television, including the Australian content of television, advertising, standards for children's television, self-regulation by broadcasters, the introduction of cable and subscription television services, and the regulation of the use of satellite program services by broadcasters.

CENSORSHIP AND CLASSIFICATION OF TELEVISION PROGRAMS

From 1 January 1986, television station licensees are required to classify all advertisements, program promotions and programs (except children's programs) in accordance with the Australian Broadcasting Tribunal's standards.

AUSTRALIAN BROADCASTING CORPORATION

The Australian Broadcasting Corporation (ABC) was established under its own act of parliament and operates under a charter setting out its functions and responsibilities. It is charged with providing innovative and comprehensive radio and television services within Australia, as well as operating Radio Australia. The charter also recognises the ABC's role in encouraging and promoting the musical, dramatic, and other performing arts in Australia.

The Board of the Australian Broadcasting Corporation comprises the managing director and between six and eight part-time non-executive directors appointed by the Governor-General. The Board is responsible for appointing the Corporation's managing director, who is its only executive member.

Annual estimates of the ABC's receipts and expenditure are submitted to the Minister for Communications, and funds are appropriated by the Commonwealth Parliament.

ABC programs are broadcast from transmitting stations owned by the Commonwealth and operated under contract by the Australian Telecommunications Commission (Telecom Australia).

The principal radio services provided by the ABC include three amplitude modulation (AM) radio services, a 24-hour stereo frequency modulation (FM) radio service, a nationwide independent news service, and a 24-hour overseas radio service (Radio Australia) which broadcasts in nine languages. A wide range of radio programs is provided, including news, music, drama and features, current affairs, religion, rural programs and broadcasts for children. Under the *Parliamentary Proceedings Broadcasting Act 1946*, the ABC is required to broadcast proceedings of the Commonwealth Parliament.

At 30 June 1986, ABC radio programs were being transmitted from 21 amplitude modulation (AM) stations in New South Wales (including two each in Sydney and Newcastle). There were also two shortwave stations in Lyndhurst transmitting to distant areas. One stereo frequency modulation (FM) service, relayed from Adelaide, broadcasts classical music, news, drama, light music, folk, jazz and experimental music, and other features that benefit from stereophonic broadcasting. A second ABC stereo FM station in Sydney broadcasts mainly rock and pop music. This program is also relayed on AM to Wollongong, Newcastle and Canberra from midnight to 6am.

ABC television was being broadcast from 14 television stations and 40 translator stations (low power relay stations) in New South Wales as at 30 June 1986.

SPECIAL BROADCASTING SERVICE

The Special Broadcasting Service is a statutory authority established under the provisions of the Broadcasting Act. The Service operates a multicultural television service (SBS-TV) that transmits to Sydney, Newcastle, Wollongong, Goulburn and Cooma in New South Wales and selected centres in other states. Transmission is on the ultra high frequency (UHF) band in all locations.

In addition, the Service provides multilingual radio services transmitted in over 50 languages through radio station 2EA in Sydney and through translator stations to Newcastle and Wollongong. (Radio services are also provided to Melbourne and Brisbane.)

In 1985-86, expenditure by the service Australia-wide amounted to $45m.

COMMERCIAL SERVICES

Commercial radio and television stations are operated under licences granted and renewed by the Australian Broadcasting Tribunal. The initial period of a licence is up to five years and renewals may be granted for periods of up to three years. Commercial stations derive their income from the broadcasting of advertisements and other publicity.

At 30 June 1986, there were 44 commercial radio stations licensed in New South Wales (including nine in Sydney). Commercial radio services are transmitted on medium-frequency amplitude modulation (AM) bands except for two frequency modulation (FM) stations in Sydney. Radio stations have been permitted to broadcast in stereo on the AM band since 1985.

At 30 June 1986, there were 14 commercial television stations operating in New South Wales (including three in Sydney). There were also six commercial radio translator stations and 39 commercial television translator stations operating in New South Wales.

Figures collected by the Australian Broadcasting Tribunal show that the average composition of programs telecast by metropolitan commercial television stations in Australia in 1985-86 was: drama (42 per cent), light entertainment (19 per cent), sport (10 per cent), children's programs (8 per cent), news (8 per cent), information and current affairs (9 per cent), and other programs (4 per cent).

Under the provisions of the Broadcasting Act, licensees of commercial radio and television stations are required to employ, as far as possible, the services of Australians in the production and presentation of programs. In addition, the Act requires that applicants for the granting, renewal or transfer of licences give an undertaking to encourage the provision of programs wholly or substantially produced in Australia, and use, or encourage the use of, Australian creative resources in the provision of programs. The underlying principle of the legislation is that Australian radio and television should be distinctively Australian in content and character. Current Australian content regulations call for commercial television stations to meet the requirements of a points/quota system, as determined by the Australian Broadcasting Tribunal.

PUBLIC RADIO STATIONS

Public radio stations provide a wide range of programming services supplementing and complementing services provided by the ABC and commercial stations. Only non-profit organisations may be granted licences, which are issued by the Australian Broadcasting Tribunal in the following categories:

(a) *Community.* These are issued to community groups intending to provide programs serving a particular community.
(b) *Educational.* These are issued to educational bodies intending to provide programs of continuing, adult, and cultural education.
(c) *Special.* These are issued to groups intending to provide programs serving a particular interest or group of interests, such as music, sport, or religion.

At 30 June 1986, there were 28 public radio stations operating in New South Wales, including 12 in Sydney. These stations serve small local areas.

SPORT AND RECREATION

PARKS AND RECREATION RESERVES

National Parks

In terms of the (State) National Parks and Wildlife Act 1974, certain areas of the State are reserved as national parks (relatively large areas set aside and protected because of their predominantly unspoiled natural landscape, flora, and fauna), as nature reserves (areas of special scientific interest containing wildlife or natural environments or phenomena), or as historic sites (sites of buildings, objects, or monuments of special significance). The Act provides that the reservation of these lands shall not be revoked and lands within the reservations shall not be appropriated or resumed, except by Act of Parliament.

The Act also provides for the establishment of wildlife management areas, game reserves, wildlife refuges, Aboriginal areas and places, and protected archaeological areas. Wildlife management areas are areas, mostly on private land, over which regulated sport-shooting takes place during prescribed open seasons; game reserves are areas controlled and managed by the National Parks and Wildlife Service for the propagation and taking of native "game" animals; wildlife refuges are privately owned or leased properties that are managed for wildlife conservation; Aboriginal areas are sites of archaeological and/or anthropological significance on unoccupied Crown land; Aboriginal places are gazetted areas that have a spiritual, historic or cultural significance for Aboriginal people; and protected archaeological areas are areas on leased or freehold land "declared" for the protection of Aboriginal relics.

A Director of National Parks and Wildlife is appointed under the Act with responsibility, subject to the control of the Minister for Planning and Environment, for the administration of the National Parks and Wildlife Service and the protection of flora, fauna, and Aboriginal relics in New South Wales. The Director is responsible for the care, control and management of all of the national parks, historic sites, nature reserves and Aboriginal areas and three game reserves. Expenditure on national parks, etc. is mainly met from the National Parks and Wildlife Fund, which benefits from Government grants, public admission charges, and contributions from the National Parks and Wildlife Foundation.

The largest national park in the State is the *Kosciusko National Park*, which comprises 647,000 hectares in the Kosciusko highlands and extends about 160 kilometres northward from the Victorian border to the Australian Capital Territory. The *Royal National Park* (15,000 hectares) and *Ku-ring-gai Chase National Park* (14,700 hectares) are situated on the southern and northern fringes (respectively) of Sydney, while the *Blue Mountains National* Park (237,000 hectares), *Dharug National Park* (14,800 hectares), *Kanangra-Boyd National Park* (68,300 hectares), *Brisbane Water National Park* (11,300 hectares) and the *Wollemi National Park* (487,000 hectares) are within 150 kilometres of Sydney. 66 national parks (totalling 2.9 million hectares), 15 historic sites (2,900 hectares), and 177 nature reserves (512,000 hectares) have been established throughout the State. There are 36 wildlife management areas (371,000 hectares), 455 wildlife refuges (1.6 million hectares), 9 Aboriginal areas (11,500 hectares), 13 Aboriginal places and 13 protected archaeological areas.

The National Parks and Wildlife Service is also responsible for the administration of 20 State Recreation Areas (20,700 hectares). These are regional-type parks comprising large tracts of land where people can participate in a wide range of outdoor recreational activities in a non-urban setting. In most cases, the parks are controlled by a Trust comprising local residents appointed by the Minister.

In 1985-86, the total income of the National Parks and Wildlife Service was $53m of which the State Government contributed $31m. Total expenditure was $49m, including administration $26m, development and restoration activities $2.8m and land acquisition $2.6m. The National Parks and Wildlife Foundation provides supplementary finance for the acquisition of land and for research purposes. Projects to be supported by the Foundation are selected in consultation with the National Parks and Wildlife Service.

Crown Lands

The administration of crown lands is the responsibility of the N.S.W. Department of Lands. Crown lands suitable for recreation are widely dispersed throughout the State. These Lands may be committed to one of the Department's recreational programs (walking tracks, bridle paths, urban parks, campsites and bushland reserves) or remain undeveloped and fulfil the equally important role of preserving public access and linking recreation areas.

Botanical Gardens

The *Royal Botanic Gardens, the Domain* and the *National Herbarium of N.S.W.* are situated on the shores of Farm Cove, Sydney Harbour. The Gardens occupy 30 hectares and contain a large collection of flowering plants, shrubs and trees, as well as a palm grove, succulent garden and pyramid glasshouse. There is also a Visitor Centre which houses temporary exhibitions. The Domain consists of 35 hectares of open parkland. The National Herbarium, with approximately 900,000 scientific specimens, is a research and information centre.

A cool climate garden at Mt. Tomah in the Blue Mountains and an Australian native garden and arboretum at Mount Annan, near Campbelltown, are under development by the Royal Botanic Gardens for opening to the public by 1988.

The Gardens, Domain and Herbarium are administered under the Royal Botanic Gardens and Domain Trust Act 1980.

Zoos

Taronga Zoo is situated on the northern side of Sydney Harbour and comprises an area of about 30 hectares. The natural formation has been retained as far as practicable with the object of displaying the animals in natural surroundings, and an aquarium has been built within the grounds. Special exhibits include Platypus House, Nocturnal House, Rain Forest Aviary, Seal Cove, Koala House, "Friendship Farm" (an area in which zoo visitors may handle and feed a variety of farm animals), Chimpanzee Park and Waterfowl Ponds. In 1985-86, paid admissions to the grounds numbered 911,867. At 30 June 1986, the Zoo held 3,626 specimens, comprising 698 mammals, 1,569 birds, 433 reptiles, 522 fish, 393 invertebrates and 11 amphibians.

The open-range *Western Plains Zoo* at Dubbo occupies about 300 hectares. Paid admissions to the Zoo during 1985-86 numbered 226,032. The Zoo contains a variety of free-ranging species, which can be viewed in a natural environment. At 30 June 1986, there were 779 specimens (634 mammals, 136 birds and 9 reptiles).

Taronga Zoo and the Western Plains Zoo are administered by the Zoological Parks Board of New South Wales. In 1985-86, income of the Board was $8.8m.

Centennial Park

Centennial Park was established to commemorate the one hundredth anniversary of the founding of the colony of Sydney. It was opened to the public on 26 January 1888.

The park, which is 220 hectares in area, is located 5 km south-east of the centre of Sydney. Although the park provides for a diversity of recreational pursuits, the majority of users come for activities such as walking, relaxing and picnicking. Active recreation areas include 15 football fields, 11 cricket fields, 3 hockey fields, softball and baseball areas, and tracks and paths for bicycles, horses, jogging and walking.

Features of the park include a natural sandstone ridge in the north, heavily timbered areas contrasting with undulating to flat, open parkland, a garden area, swamp and numerous ponds.

The park is a sanctuary for wildlife, particularly birds, with many species, notably musk duck, black swan and black duck, breeding successfully.

Vehicles are permitted in the park from sunrise to sunset.

Centennial Park is administered by the Centennial Park Trust.

SPORT AND RECREATION SERVICES

Local Government Services

Local government councils provide and maintain many sporting and recreational facilities including playing fields and ovals, children's playgrounds, tennis courts, netball courts, public golf links, Olympic swimming pools, swimming baths, bicycle tracks and boat launching facilities. Showgrounds cater for equestrian events and other sporting and recreational activities. Councils are also responsible for the upkeep of beaches.

Councils maintain parks and reserves and provide picnicking and barbecuing facilities in suitable areas. Walking trails may be provided in bushland reserves.

Community and senior citizens' centres may be used for arts and crafts, exhibitions, folk music, singing, dancing, housie, and other recreational pursuits. Vacation activities such as cricket/football coaching, camping, drama workshops and learn to swim programs may be organised through councils' community services departments.

Rehearsal and concert facilities are normally provided by those councils which have an orchestra, brass band or choir.

Department of Sport and Recreation

The New South Wales Department of Sport and Recreation caters for the sporting and recreational needs of the community through a network of regional offices and sport and recreation centres and sites. The services provided include community recreation services, camping and training facilities, learn-to-swim programs and vacation play centres.

There are 12 sport and recreation centres which provide an outdoor education and camping program for children as well as offering a variety of services and facilities for the community in general. In addition, there are 5 special sites where under-canvas camping programs are conducted.

The Department conducts an extensive learn-to-swim and water confidence scheme for children in the summer school vacation each year and also organises after-school swimming instruction for children. Swimming instruction is also available for adults.

Vacation play centres are organised on a co-operative basis by the Department and local councils and are conducted during school holidays for children from 5 years upwards.

Under the coaching accreditation scheme, the Department arranges for leading or state coaches to conduct training courses for coaches in various sports.

Sport and Recreation Fund

The Sport and Recreation Fund was established under the provisions of the Soccer Football Pools Act 1975 for the purpose of making grants for the support and development of sporting and recreational facilities in New South Wales. The Fund is financed from the State duty received from the soccer pools (under the Act two-thirds of the duty is paid into the Fund) and other State contributions.

In 1985-86 allocations from the Fund amounted to $9.0m. Of this amount, $3.6m was paid for capital assistance in the development of sporting facilities and amenities, $1.7m for sports development and $3.7m for other sporting and recreational purposes.

SPORT AND RECREATION CLUBS

Licensed clubs play an important role in providing leisure facilities in New South Wales. The registration of clubs, and their rules and management (including provisions relating to the supply of liquor) are governed by the Registered Clubs Act 1976. Under the Act, clubs may be formed for social, literary, political, sporting, athletic or other lawful purposes. The premises of the club must contain facilities appropriate to the club's activities. Clubs must be companies or co-operative societies and the rules must provide that any profits or other income of the club shall be applied only to the promotion of the purposes of the club and shall not be paid to or distributed among the members of the club.

The larger clubs, of over 5,000 members, comprise mainly Leagues' clubs (formed to support the professional football code of rugby league), Workmen's clubs, and Returned Servicemen's clubs, while smaller clubs are involved in lawn bowling, golf, and other sporting and social activities. At 30 June 1986, there were 1,578 clubs in New South Wales with licences for the sale of liquor to members.

Financing of club premises and equipment and the comfort and service afforded by these clubs are mainly provided by profits derived from poker machines and, to a lesser extent, from liquor sales profits and members' subscriptions. For the larger clubs, individual members' joining fees and annual subscriptions are usually small.

SPORTING VENUES

Sydney Cricket Ground and Sydney Sports Ground

The Sydney Cricket Ground is the principal sporting venue in New South Wales. The three main sports to use the Cricket Ground are cricket, rugby league and Australian rules football. Local, interstate and international matches are played there. The Ground has a capacity of 52,000.

The State Government made a formal grant of the land in 1877 for use, firstly, as a cricket ground, and secondly for any other public amusement or purpose. It was then known as the Association Ground. The current Members Pavilion was completed in 1886 and extended in 1903. The adjacent Ladies Pavilion was built in 1896 when the name of the ground was changed to the Sydney Cricket Ground.

The modern Brewongle and Hills Stands were completed in recent years, the open deck Doug Walters Stand on the "Hill" was opened in 1985 and the Clive Churchill Stand was opened in 1986. Improvements have also been made to the M.A. Noble, Bradman and Members Stands.

Floodlighting was introduced to the Cricket Ground in 1978 with the erection of six 80 metre high towers fitted with 96 3,500 watt lights. Illumination capacity was later reduced because of the glare from the lights and complaints from residents near and far. The floodlighting system was structurally altered and entirely relamped prior to the 1985-86 cricket season, thereby re-establishing the floodlights to their original illumination capacity.

An electronic scoreboard and screen replaced the old manually operated scoreboard in 1983. The screen is used principally for replays of the action on the field.

During the year ended 28 February 1987, the Ground was used for 57 day sessions of sport and 12 night sessions including 24 days and 4 nights of cricket, 21 days and 7 nights for rugby league and 10 days for Australian rules football. Ground attendances during the year totalled 1,056,000 including 255,000 members, 194,000 cricket patrons, 352,000 rugby league patrons and 219,000 Australian football followers.

The highest attendance during the year was recorded at the 1986 rugby league grand final with 46,000 patrons present. The largest crowd during the 1986-87 cricket season appeared for a day/night international match between Australia and England when 36,000 persons attended. The year saw rugby league tests between Australia and New Zealand, growing support for the Sydney based Swans Australian football team during their home games and cricket tours by England and the West Indies. In addition, the rugby league conducted "state of origin" matches and some club and Monday night games.

At 28 February 1987, there were 19,056 financial regular members of the Sydney Cricket Ground, 2,340 provisional members and 38,606 applicants on the "waiting" list for membership.

The adjacent and smaller Sydney Sports Ground has been demolished and is being replaced by a $60m football stadium with a 40,000 seat capacity and an associated indoor sports training centre and members recreational club. The stadium will be switched to a north-south direction and have covered seating around the whole ground. The Sydney Cricket and Sports Ground complex will be completed by Australia Day 1988.

The new stadium will become the principal venue for 3 winter codes — rugby league, rugby union and soccer. It will complement the international status of the Sydney Cricket Ground as well as preventing deterioration of the surface and playing field of the latter through overuse.

The cost of the redevelopment of the Sydney Sports Ground is being financed through the introduction of gold and corporate membership providing membership of both the Sydney Cricket Ground and Sydney Sports Stadium. Corporate reserve seating (similar to tennis style boxes) will be provided to companies in the new stadium. As at 28 February 1987, 4,919 units of gold and corporate membership had been received.

The Sydney Cricket Ground, Sydney Sports Ground and the new Parramatta Stadium (see below) are administered by the Sydney Cricket and Sports Ground Trust.

Parramatta Stadium

The Sydney Cricket and Sports Ground Trust (see above) entered into a 5 year lease commencing in January 1985 with the Minister for Sport and Recreation for the construction and management of the Parramatta Stadium. The stadium, with a seating capacity of 30,000, opened in March 1986. It took 14 months to build and cost $16m. Funds were provided jointly by the State and Federal Governments.

Sport at the stadium attracts people from the western region of Sydney. Rugby league and soccer are the principal sports played there in the winter.

Total attendances at Parramatta Stadium during 1986-87 were 364,000 including 288,000 for rugby league and 39,000 for soccer.

The State Sports Centre

The State Sports Centre at Homebush was opened in November 1984. It caters for 25 different sports. The Centre includes a competition hall seating 4,000 for sporting events up to international standard, a gymnastics centre with a full range of olympic apparatus, a training centre providing warming-up and training facilities for major games and other sports and a weight-training room. There is also a sports education centre and a sports medicine centre.

The State Hockey Centre — an international standard hockey stadium — was opened in September 1985 as stage II of the Sports Centre. The playing arena with its synthetic playing surface was designed to meet the requirements of the International Hockey Federation.

The State Aquatic Centre should be constructed by September 1988. Further development of the facilities at the Sports Centre will extend over a number of years.

Activities at the Sports Centre include international sporting events in basketball, table tennis, karate, boxing, professional wrestling and hockey and state sporting championships in table tennis, judo, weightlifting, powerlifting, rollerskating, karate, tae-kwon-do, gymnastics, basketball, netball, fencing and flycasting.

The State Sports Centre Trust, constituted under the State Sports Centre Trust Act 1984, is responsible for the management and day-to-day running of the centre.

PUBLIC ENTERTAINMENTS

THEATRES AND HALLS

Buildings in which public entertainments are held including drive-in and open-air theatres and premises in which public meetings (other than meetings for religious worship) are held, are required to be licensed under the Theatres and Public Halls Act 1908. In 1987, there were approximately 2,000 theatres, public halls and drive-in theatres licensed under the Theatres and Public Halls Act. A licence may be refused if proper provision is not made for public safety, health and convenience, or if the site or building is unsuitable for the purpose of public meetings or entertainment. An application for a licence under the Theatres and Public Halls Act and the appropriate plans and specifications of buildings intended to be used as theatres or public halls must be approved by the Minister for Local Government. The Act also empowers the Attorney-General to regulate or prohibit any public entertainment, with the exception of boxing and wrestling, which are the responsibility of the Minister for Sport and Recreation.

The Film and Video Tape Classification Act 1984 provides for a censor to classify films (including video tapes) intended for exhibition and/or sale in New South Wales into one of four categories:

G — suitable for general exhibition;
PG — parental guidance recommended for persons under the age of 15 years;
M — cannot be recommended for viewing by persons under the age of 15 years; and
R — unsuitable for viewing by a minor.

In accordance with an agreement between the Commonwealth and State governments, cinema films (and home videos) — both local and imported — are subject to review by the Australian film censor and must be classified before they can be exhibited or sold in this State. Unclassified material or material refused classification cannot be exhibited or sold under any circumstances. The censorship provisions are administered by the N.S.W. Attorney General's Department.

Sydney Entertainment Centre

The Sydney Entertainment Centre, situated in the Haymarket area of Sydney, is the largest covered multi-purpose auditorium in Australia with a maximum seating capacity of 12,000. The Centre is suitable for a wide range of events including indoor sports, circuses, spectaculars, concerts and meetings, as well as theatre, opera, ballet and musicals. A private management company operates the Centre.

FESTIVALS

Festival of Sydney

The Festival of Sydney commenced in 1977 replacing the Waratah Spring Festival held from 1956 until 1973. The Festival is organised by the Sydney Committee, a non-profit limited liability company. The Festival has over 70 major sponsors and supporters.

The main objectives of the Festival are to cultivate, promote and develop cultural, sporting, artistic and community events, and thereby promote tourism in N.S.W. The Festival aims to cater for all tastes presenting a broad variety of activities and events to entertain and educate as large a cross-section of the community as possible. Major festival events include the Hyde Park Village activities, New Years Eve Fireworks Display, Opera in the Park, Symphony in the Park and the Sydney Harbour Ferry Race.

HORSE RACING, HARNESS RACING AND GREYHOUND RACING

Horse racing, harness racing, and greyhound racing in New South Wales may only be held on racecourses licensed under the Gaming and Betting Act 1912. Racecourses may only be operated by non-proprietary associations. The Act prescribes limits on the number of racecourses that may be licensed, and on the number of race meetings that may be held on the courses each year.

So far as the actual conduct of race meetings is concerned, horse racing is controlled by the Australian Jockey Club, harness racing by the Harness Racing Authority of New South Wales and greyhound racing by the Greyhound Racing Control Board. Members of both the Authority and the Board are appointed by the Governor.

Bookmakers are licensed by the racing clubs and controlling bodies to operate on various racecourses or groups of racecourses. Racing clubs may be required by the State Government to install totalizators on their racecourses and to use them at every race meeting. Betting on horse, harness and greyhound races is permitted if the bets are made at licensed racecourses or through branches or agencies of the Totalizator Agency Board (see below). In 1985-86, on-course and off-course totalizator investments amounted to $2,110m. The approximate turnover of licensed bookmakers during 1985-86 amounted to $1,166m.

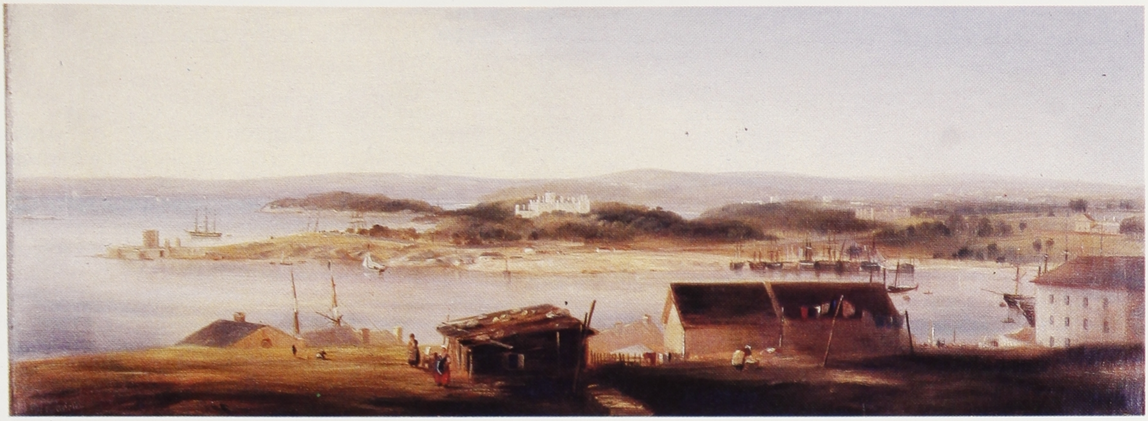
A *Totalizator Agency Board* was established by the State Government in 1964, in terms of the Totalizator (Off-course Betting) Act 1964, to conduct off-course totalizator betting in New South Wales. The Board comprises members nominated by the Minister for Racing and by the various racing controlling authorities and racing clubs. It is authorised to conduct off-course betting in respect of any race or combination of races held on racecourses within or outside Australia. At 30 June 1986, the Board operated 642 cash offices, a statewide telephone betting service and 274 agencies in hotels and licensed club premises.

In general, the Board receives betting investments as agent for the club operating the totalizator on the racecourse at which the relevant races are held, and the investments received by the Board are pooled with the investments on the club's own totalizator. However, the Board may also conduct its own pool of investments. During 1985-86, off-course betting investments with the Board amounted to $1,773m.

The Board also conducts totalizator betting on the rugby league football competition ("Footy TAB").

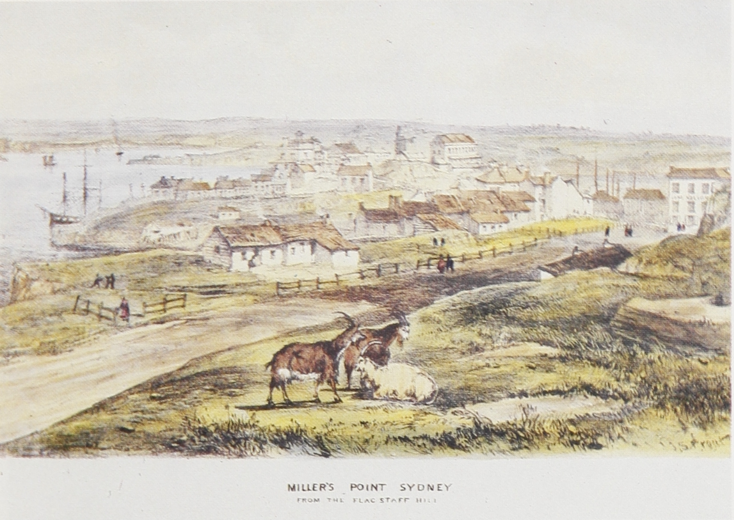
The commission earned by the Board is used to meet its operating expenses and the cost of establishing and extending branches throughout the State. The surplus is distributed to galloping, trotting and greyhound clubs and related bodies and the Racecourse Development Fund, the latter being used for capital improvements to racecourses. In 1985-86, the clubs and related bodies received a distribution of $43m whilst $11m was allocated to the Fund.

Particulars of taxes in connection with racing are shown in Chapter 23 "Public Finance".



National Library of Australia

'Sydney Cove', by Conrad Martens, 1842. Conrad Martens arrived in Sydney in 1835 and was the first full-time professional artist to practise successfully in New South Wales. Martens possessed a combination of a keen sense of topographical observation (developed when a draughtsman on Charles Darwin's 'Beagle') and a romantic, Turnerian interest in pictorial structure and the interplay of light and shade. He believed that nature could only be seen through art and, in his travels, had particularly studied the effects of the atmosphere at sea. Such interests are reflected in the paintings of his favourite subject - Sydney Harbour and its surroundings. The effects of sun and shade over sea and shore are well represented in this example, where bright sunlight theatrically lights up the new Government House (still incomplete), Government House Stables, Parbury House and the colony's first Government House. In contrasting shadow stand a thatched shed, two early houses, and long stretches of shoreline.

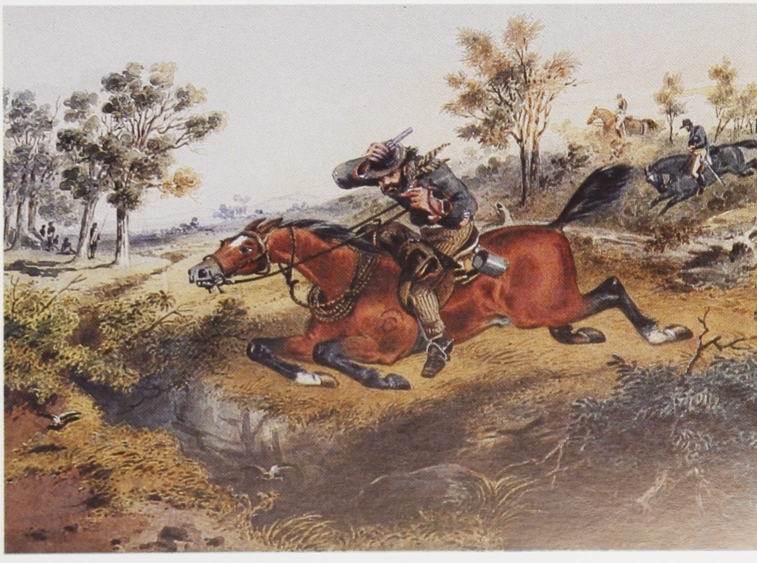

MILLER'S POINT SYDNEY
FROM THE FLAG STAFF HILL

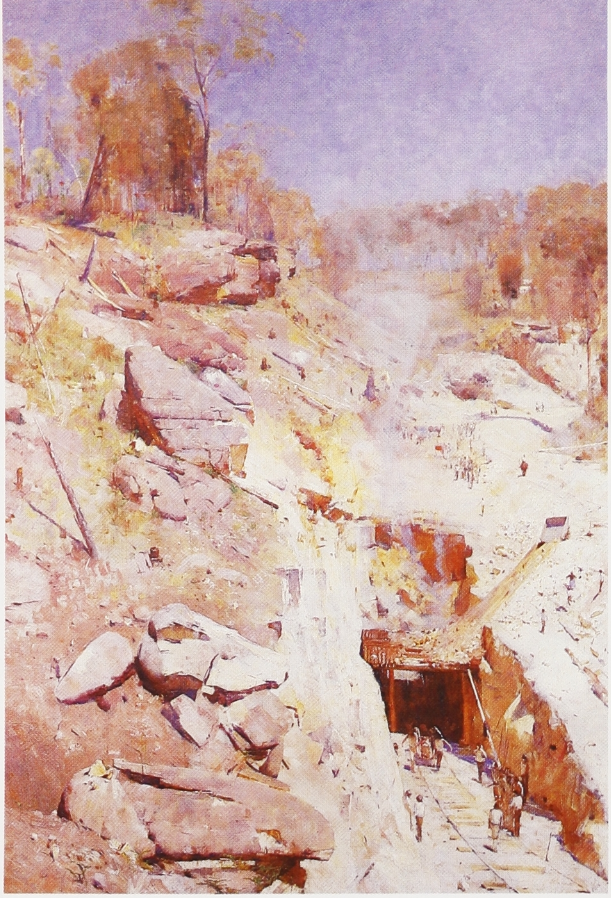
"Millers' Point Sydney from the Flagstaff", tinted lithograph from *Sydney Illustrated*, by J.S. Prout, 1842. John Skinner Prout migrated with his family to Australia in 1840, the beginning of a decade in which the young colony was to show increased interest in matters cultural. In 1842, Prout collaborated with John Rae to produce Sydney Illustrated, from which this lithograph is taken. Because of his travels, sketchbooks and general knowledge about Australia, Prout became recognised as an authority on the country. His greatest contribution, however, was to Australian painting. His picturesque touch counteracted the hitherto topographical approach to landscaping, his treatment being much broader and his observations having delicacy, freshness and immediacy.

National Library of Australia

"Hard Pressed", by S.T. Gill, 1874. Samuel Thomas Gill, born in England in 1818, settled in Adelaide at the age of 21. He spent many years painting and sketching in South Australia before going to Victoria to depict the goldrush in 1852. Later, from 1856, he spent 8 years in Sydney. This watercolour, depicting a bushranger in frantic flight before two mounted troopers, has been described as one of his "jolly commentaries". Gill had a true and accurate eye for detail and the figures he depicts are always interesting and reflective of the colonial types he encounted. Because of this, and the humorous slant of many of his paintings, his work became immediately popular in the colony.

Mitchell Library, State Library of New South Wales



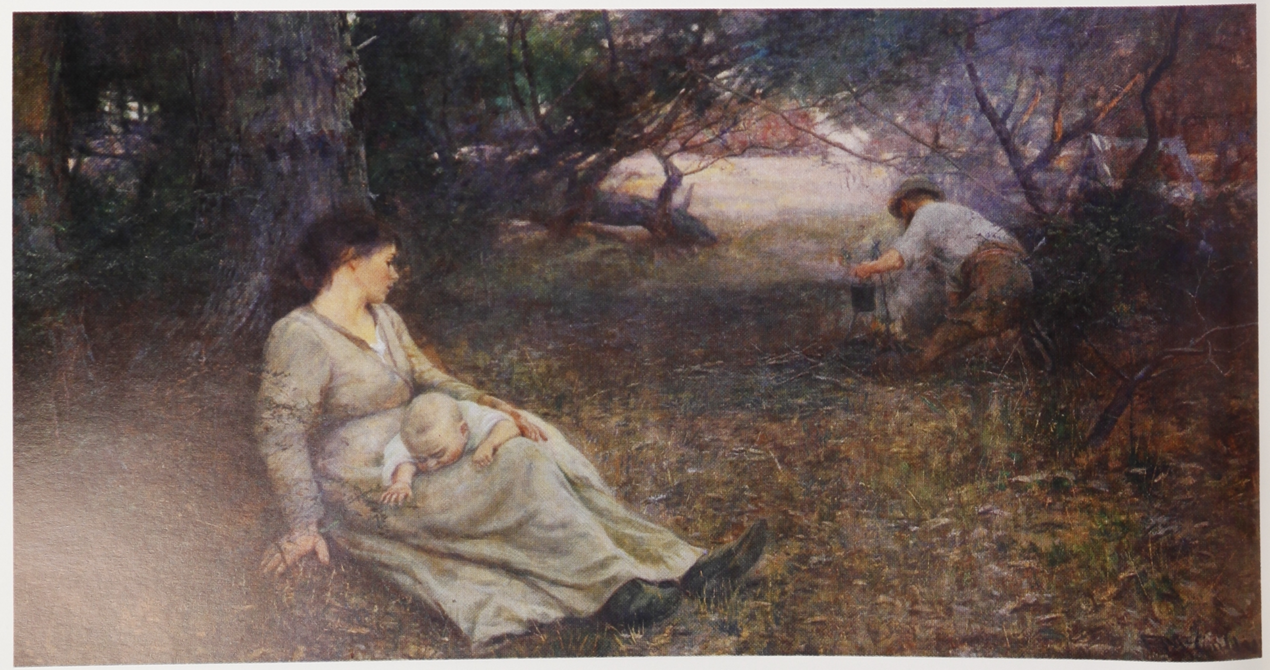


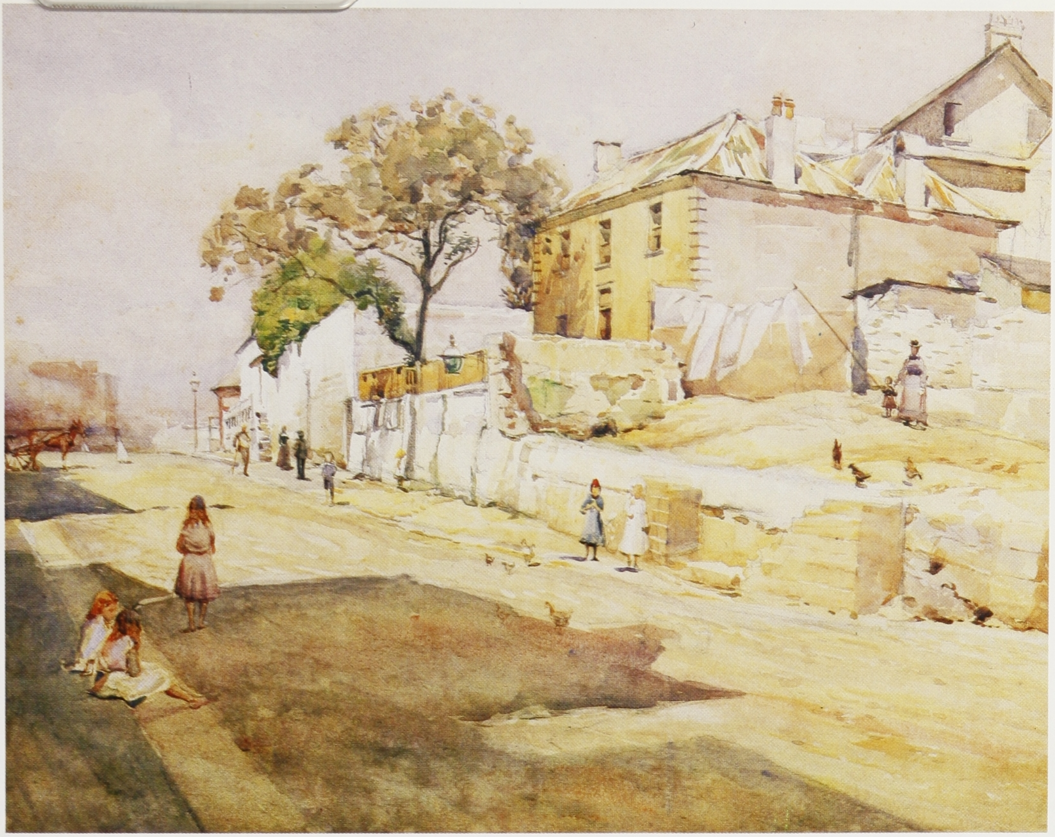
"'Fire's On', Lapstone Tunnel", by Arthur Streeton, 1891. Streeton was one of the founders of the Heidelberg School; he shared, with painters like Roberts and McCubbin, fondness for open-air painting in natural light. In 1890, however, Streeton moved to Sydney and began a new type of "heroic landscape", of which "Fire's On" was the first. It was created in the Blue Mountains in 1891, during the blasting of mountain rock to accommodate a new railway line. Painting nearby, Streeton witnessed the explosion and the accidental death of a railway worker and this established the painting's theme. The intensity of the colours used — the blue of the sky, the sombre tones of the boulders — together with the dwarfing of the human figures against the immense mass of rock and sky, underscores the futility of man's endeavour against a relentless environment.

Oil on canvas, 183.8 x 122.5 cm, Art Gallery of New South Wales, purchased 1893

"On the Wallaby Track", by Frederick McCubbin, 1896. Although he was also one of the Heidelberg School, McCubbin's work differed from Streeton's in several important respects. It often held an anecdotal interest and therefore his figures are much more significant in the total scheme of the painting, and much more a part of the bush than at odds with it. The familiar bush types he depicts in this period are often cast in heroic mould, in keeping with Victorian sentimentality and a growing Australian nationalism. The Australian idiomatic expression "on the wallaby track" was a popular euphemism signifying a traipse through bushland in search of work or food, wallaby tracks often being the only discernible paths available. The family in this painting is depicted in this light — the tent and billy reflect their itinerant lifestyle and the spent energy such wandering would entail is evident in the relaxed posture, even lassitude, of mother and child.

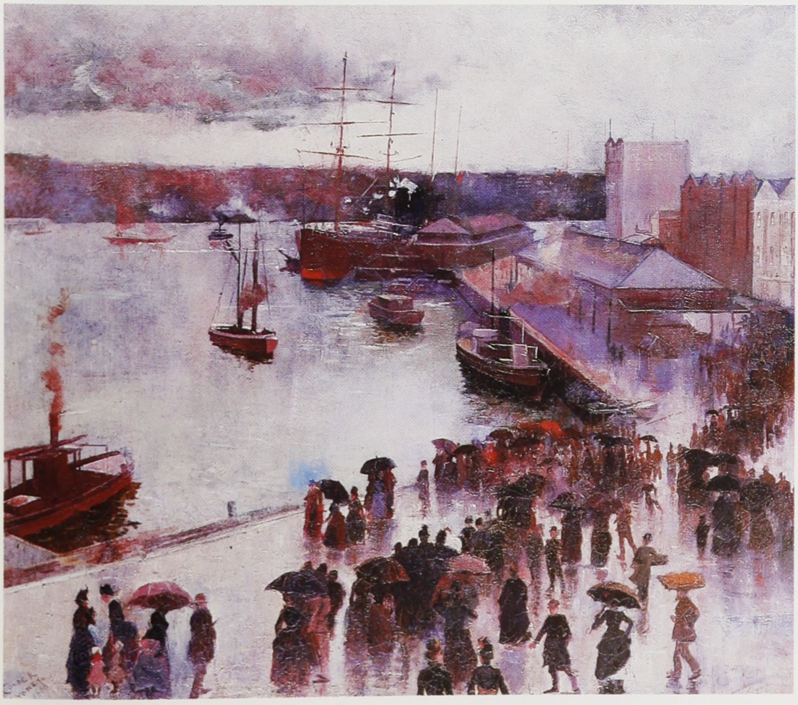
Oil, 122 x 223.5 cm, Art Gallery of New South Wales, purchased 1897





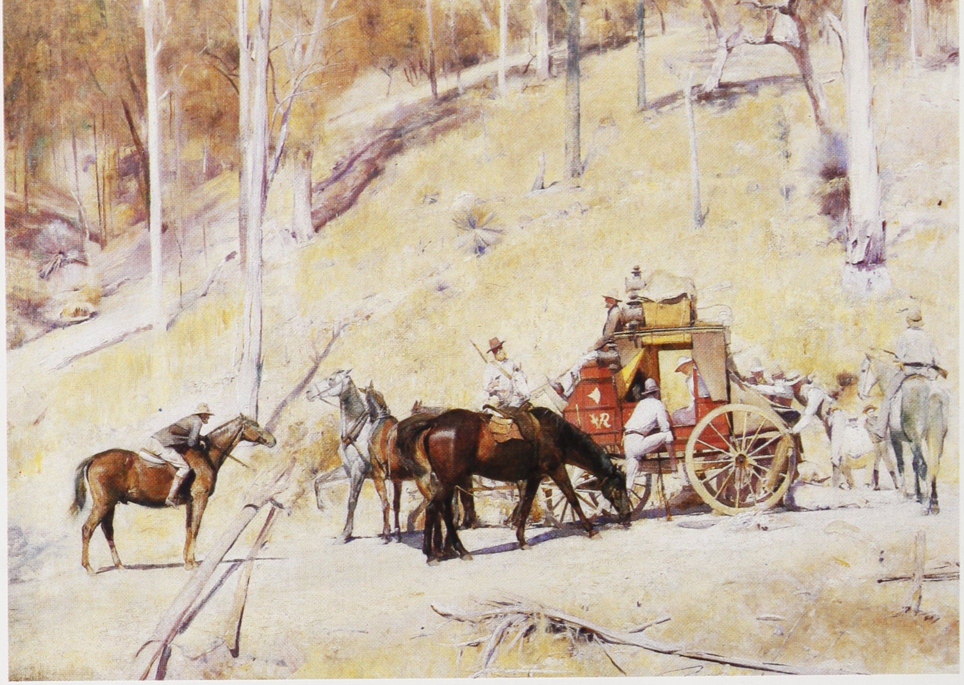
Watercolour on paper, 51 x 63.5 cm, Art Gallery of New South Wales

"Old houses, Cumberland Street", by Julian Ashton, c.1895 Julian Ashton was born in Surrey, England in 1851. He arrived in Sydney in 1886 and opened a teaching studio which was to become known as the Sydney Art School. He exercised a major influence over Australian art for sixty years, encouraging other artists and championing open-air painting as against the then prevailing academic practices. For many years, he worked as an illustrator and this painting has in it much evidence of the recorder's eye for detail and emphasis on factual statement. The painting carries no intrusion of the artist by ennobling or sentimentalising his subjects. Nevertheless, the artist as well as the illustrator is present — in the solitary tree as the only sign of nature in an otherwise human scene; in the skilful placing of children, fowls and hung washing; in touches of rusted roofs and decaying walls; and in the relief of grey-brown shadow against the stark sunlit street.



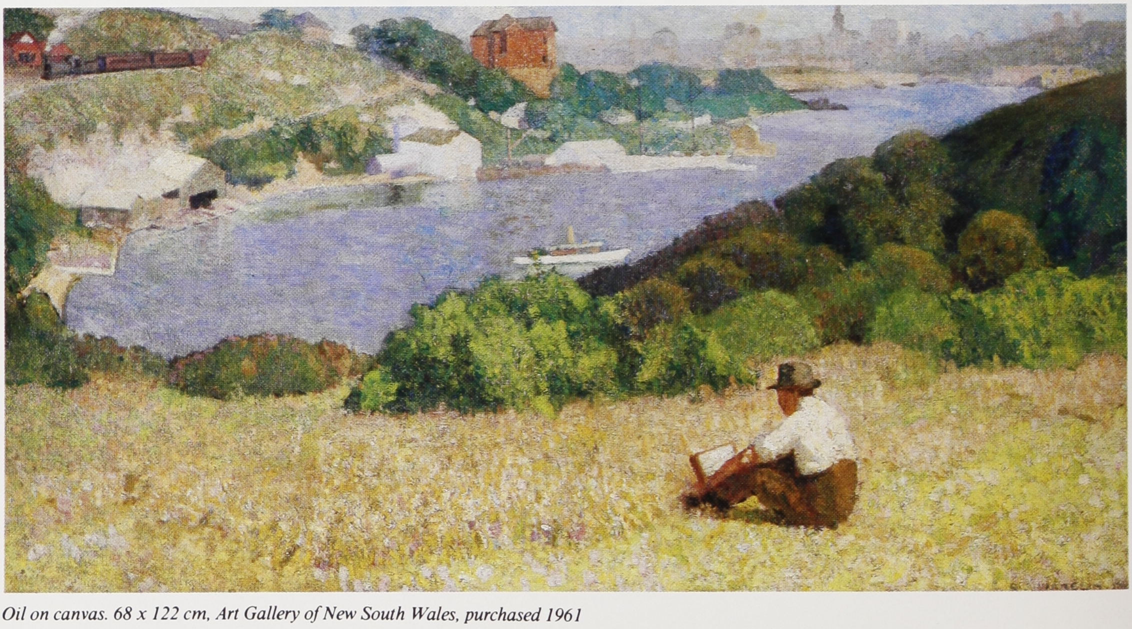
"Departure of the Orient — Circular Quay", by Charles Conder, 1888. Conder arrived in Sydney in 1884 and was only nineteen when he painted "Departure of the Orient". Before his return to England in 1890, he came into contact with Julian Ashton and with Tom Roberts and the Heidelberg School. This painting is a good example of his concentration on tone and colour — in line with the umbrellas of the waiting crowd, the heavy atmosphere of the harbour under rain is communicated by means of sombre greys, greens and browns. The painting also illustrates Conder's emphasis on conscious design — the figures on the Quay are carefully arranged in groups, and convey an air of expectancy.

Oil on canvas, 45.1 x 50.1 cm, Art Gallery of New South Wales, purchased 1888



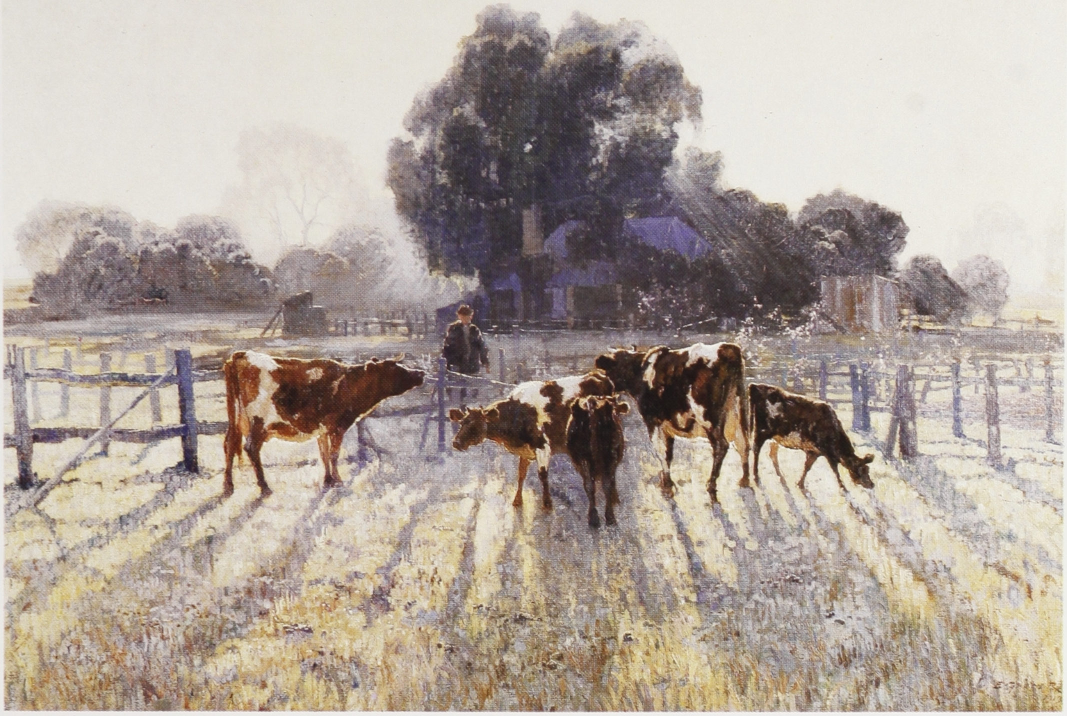
Oil on canvas, 134.5 x 182.8 cm, Art Gallery of New South Wales, purchased 1933

"Bailed up", by Tom Roberts, 1895-1927. Tom Roberts was born in Dorchester, England in 1856, emigrated to Melbourne in 1869 and joined his friend Arthur Streeton in Sydney in 1891. He studied both in Australia and in London and is usually credited with being the first Australian to be influenced by French impressionism. As McCubbin had done and in line with the Australian national and cultural identity emerging in the 1890's, he also made subject paintings dealing with the heroic or sentimental in bush life. The scene depicted in "Bailed up" is nostalgically based on a holdup twenty years before on the Tenterfield Road. It was narrated to Roberts by the driver of the Cobb & Co. coach at that time — "Silent Bob" Bates. Dramatic interest is achieved by means of the log barrier across the coach's path and by the rearing head and foot of the coach's horse in contrast to the casual stance of the bushrangers" mounts.



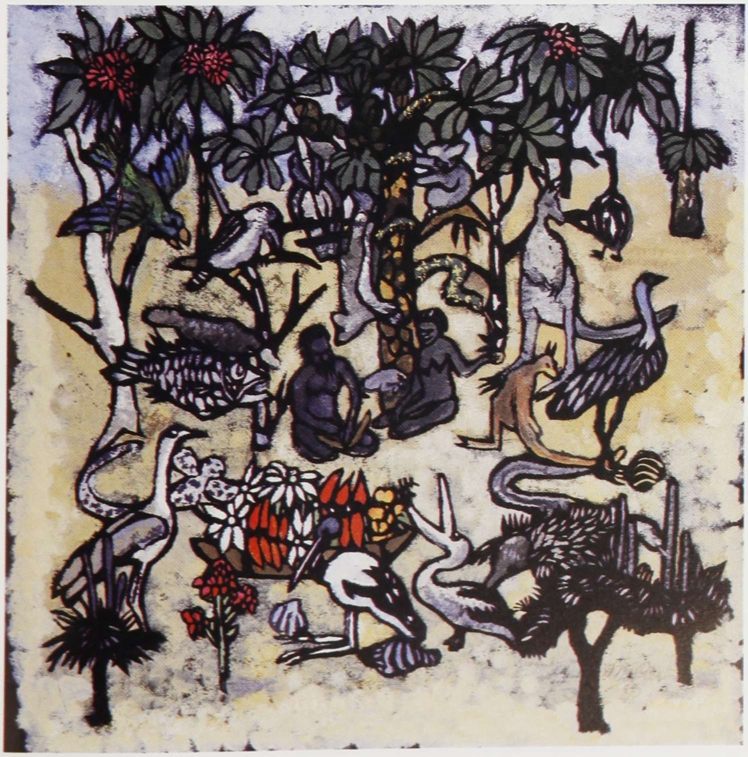
Oil on canvas. 68 x 122 cm, Art Gallery of New South Wales, purchased 1961

"Down the Hills to Berry's Bay", by Roland Wakelin, 1916. A New Zealander, Roland Wakelin was a founder of the modern art movement in Sydney. He arrived in 1912 and studied under Dattilo Rubbo, a tonal impressionist much influenced by the work of Van Gogh, Gauguin and Cezanne. At Rubbo's studio Wakelin was introduced to the principles of post-impressionism. Under the latter, the aim of the painter was to expose the essential qualities of his subject — to seek in line, tone or colour what Wakelin called "that vital rhythmic unity which he feels to be inherent in Life." Technically, for instance, tone was not mixed flat on the palette, but through the use of pure colour, usually at full strength. "Down the Hills to Berry's Bay" thus broke away from the Impressionists" dissolution of form through the simulation of light and moved to a simplified composition having a positive structure independent of light.



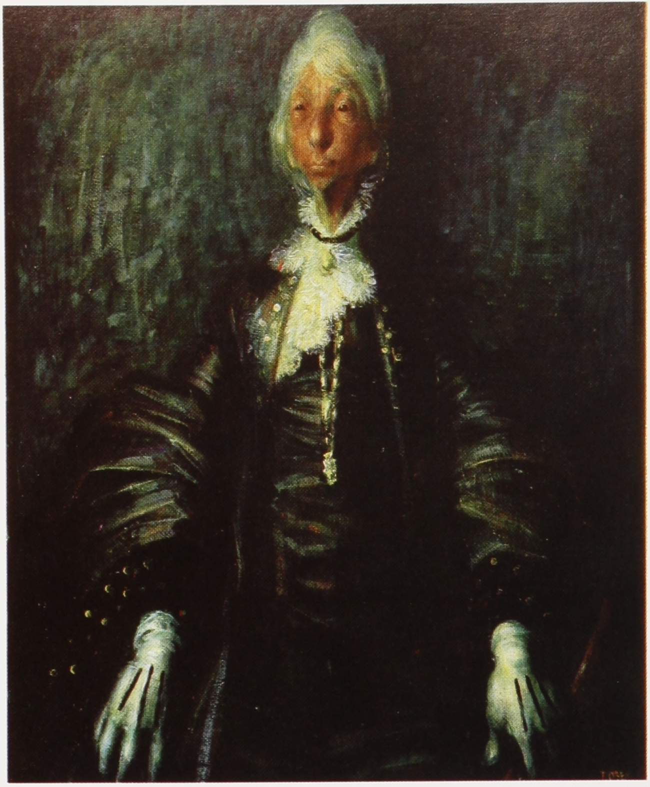
Oil on canvas, 131 x 178.7 cm, Art Gallery of New South Wales

"Spring Frost", by Elioth Gruner, 1919. A New Zealander by birth, Gruner came to Australia in 1883. He first exhibited in 1913, and was particularly interested in open-air landscape painting. He became a member of the circle headed by Norman Lindsay, who greatly admired his work. "Spring Frost" was painted in the early morning, a time especially favoured by Gruner. It displays his subtle light effects, which superficially allied him to the Impressionists, but the painting also has a solid structure. The early sun, obscured by the trees, casts long bluish shadows in the foreground, but the eye is rivetted by the darkness of the trees and the huddled group of cows in the centre. In 1923, Gruner visited Europe and from that date his style evolved significantly towards post-impressionism.



"Adam and Eve in the Garden of Eden", by Margaret Preston, 1950. Born in Adelaide in 1883, Margaret Preston studied both at home (Adelaide and Melbourne) and abroad (Munich and Paris) before settling in Sydney. She was important to Australian art in two main respects — firstly, she was an important figure in the movement of post-impressionism centred in Sydney around George Lambert (the Contemporary Group) in the 1920's, and, secondly, she was one of the earliest white painters to incorporate aspects of Aboriginal art into her own work. In addition to painting, she was a wood engraver and print-maker. From 1921 to 1926, she achieved national recognition for her decorative still-life series of Australian flowers. This work, "Adam and Eve", presents the old biblical tradition cast in a new mould — an Aboriginal Adam and Eve, surrounded by Australian wild-flowers, in an Eden populated with Australian animals.

Gouache stencil on black card, 50.1 x 49.5 cm. Art Gallery of New South Wales, purchased 1950

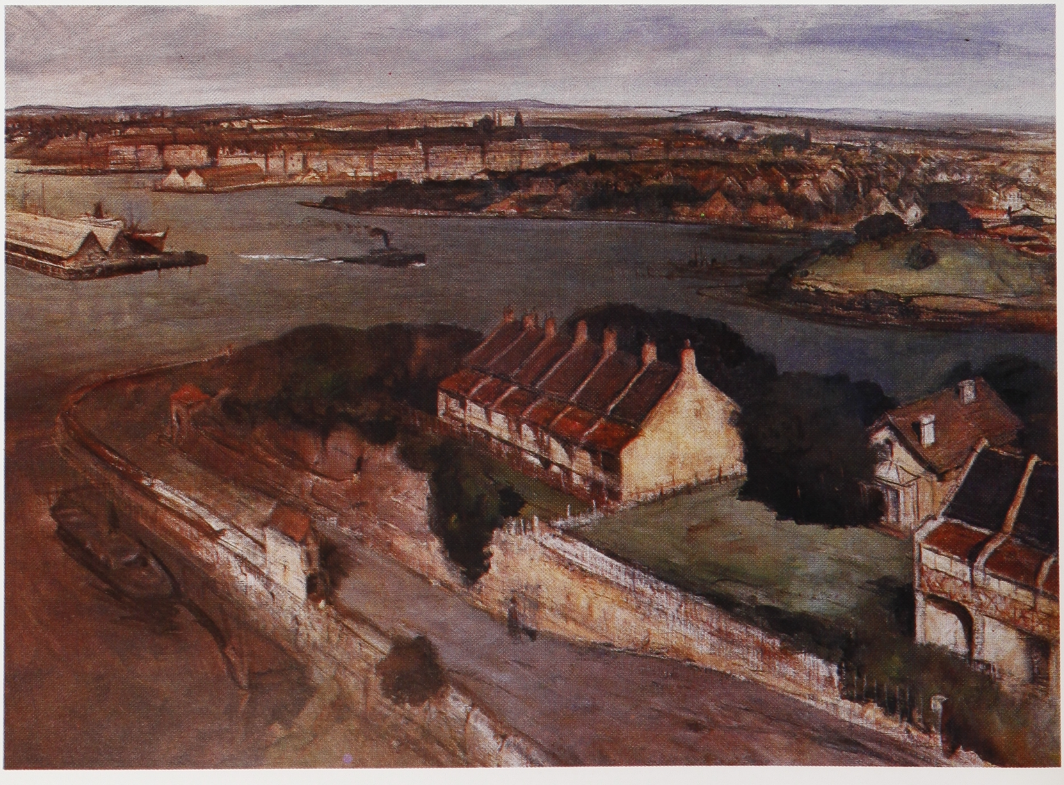


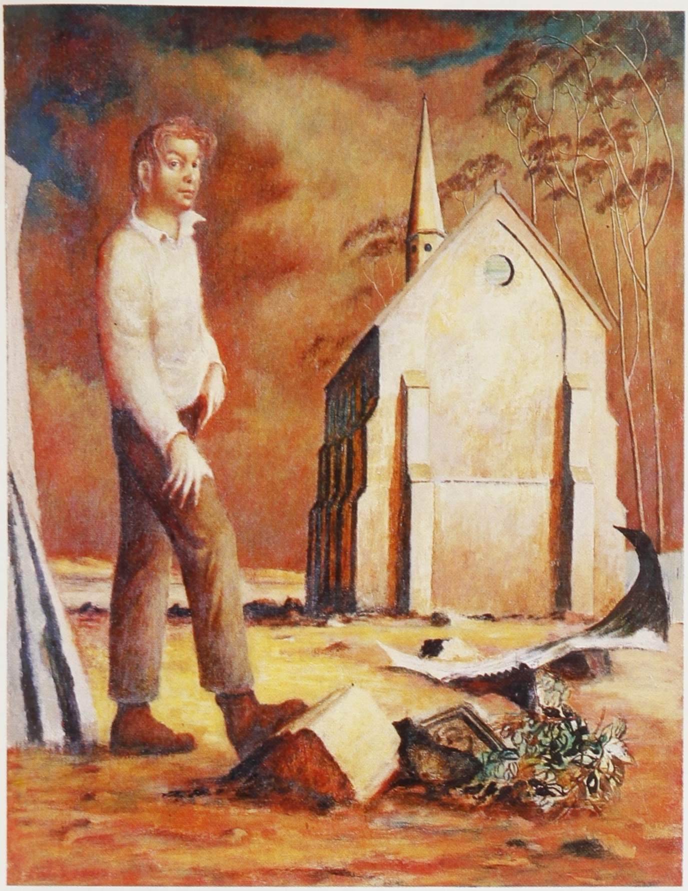
"Dame Mary Gilmore", by William Dobell, 1957. William Dobell studied art in both Sydney and Europe, where he was particularly influenced by Rembrandt, Hogarth and Renoir. In portraiture, his customary method was to acquaint himself thoroughly with his subject before proceeding to paint; he then exaggerated physical characteristics in such a way as to convey his observations on the personality of the sitter. As the 1944 "Joshua Smith" trial had demonstrated, such portraits were penetrating psychological studies rather than mere caricatures. Every facet of "Dame Mary Gilmore" is thus concentrated on illuminating the internal characteristics of the aged famous Australian poetess as much as her external ones. In the shrunken body and desiccated head, age is truthfully acknowledged, but the eyes are still bright and alert and the posture is still erect. Thrown into relief by the use of heavy blacks and greens, the touches of outmoded white lace, white gloves and locket carry a gentle humour, but also convey a quiet dignity.

Oil on copal varnish medium on hardboard, 90.2 x 73.7 cm, Art Gallery of New South Wales, gift of Dame Mary Gilmore, 1960

'The Harbour from McMahon's Point', by Lloyd Rees, 1950. Rees was born in Brisbane in 1895, but moved to Sydney in 1917. A fine draughtsman, he studied carefully the basic forms and contours of the landscapes around the Harbour and around North Sydney, where he lived. Such a concern with form stamped him as part of the post-impressionist movement, but Rees was also a romantic - he often idealised a landscape with non-existent structures and imbued his paintings with a sense of antiquity, in keeping with the ancient Australian terrain. This painting won the Wynne Prize for landscape in 1950. It shows his tendency to idealise - especially in the Italianate buildings on the far shores and in the way the paint application gives the impression of age. At the same time, the painting is carefully constructed - the row of six terrace houses dominates the centre of the picture and the other buildings and harbour foreshores seem to flow around it in a balanced and rhythmic way.

Oil on canvas, 77.2 x 99.7 cm, Art Gallery of New South Wales, purchased 1950



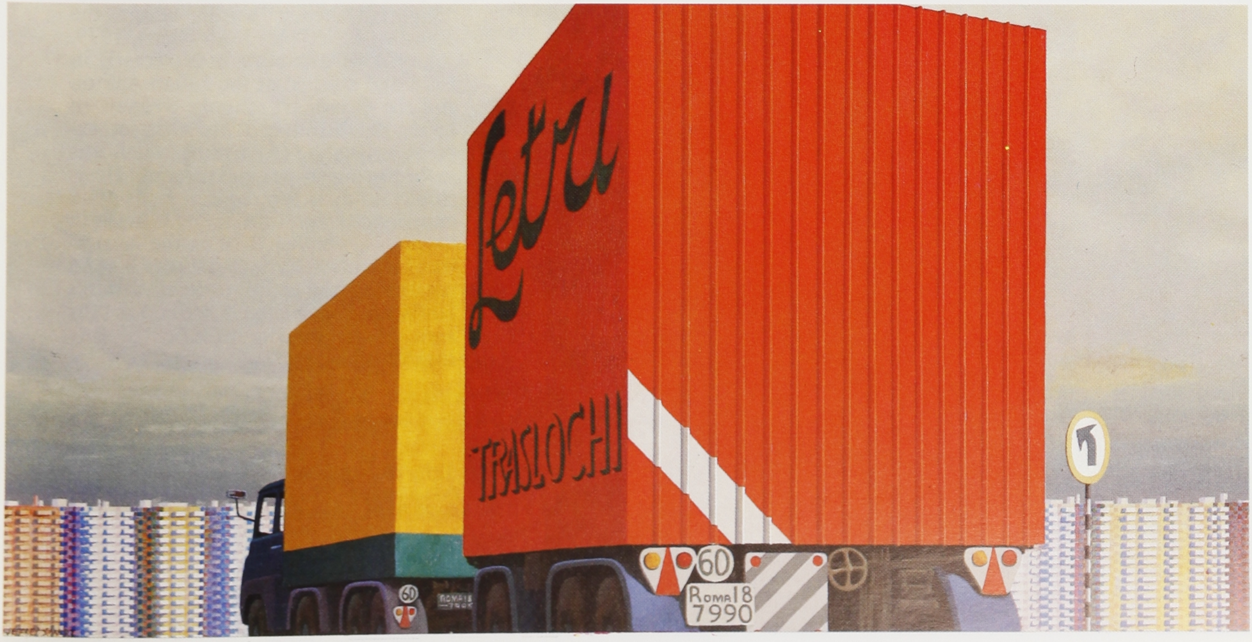


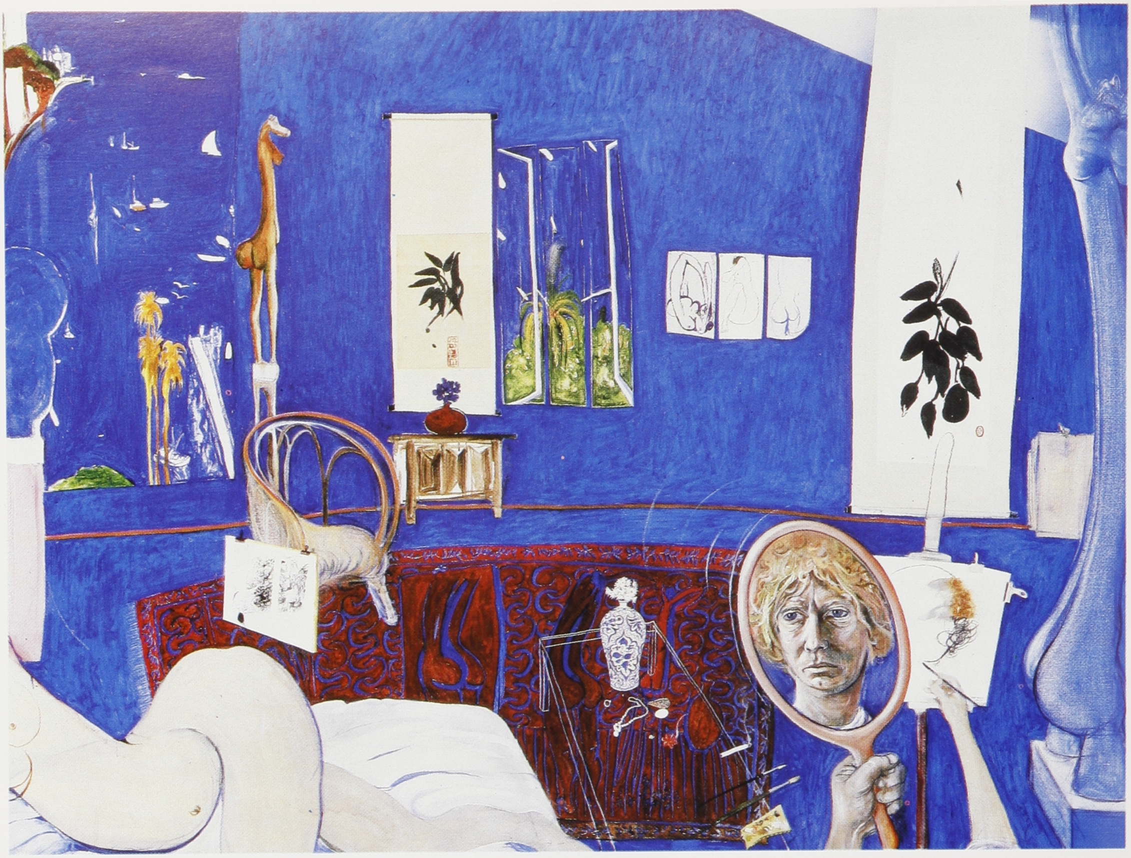
"Picture of Donald Friend", by Russell Drysdale, 1948. Drysdale came to Australia in childhood and grew up in the outback, the source of many of his regional images. He met Donald Friend just after World War II and they moved in the same artistic circles and painted together in the deserted goldmining town of Hill End. At this time, Drysdale was dominated by images of natural catastrophe over which man has little or no control. In this portrait we see the land reclaiming its own; man's institutions — here, the church — are powerless to halt Nature's path. Symbolism is used to give a sense of timelessness — the clock absent from the church gable, religious objects trampled in the dust. Against this background, the informally clad figure of Friend, whose foot rests on the Bible, implies acceptance that this is the way of history and human fate.

Oil on hardboard, 121.5 x 91.4 cm, Art Gallery of New South Wales, purchased 1949

"Truck and trailer approaching a City", by Jeffrey Smart, 1973. Smart was born in Adelaide in 1921 and studied there and in Europe for three years. From 1947 to the early 1960's, he was resident in Sydney, first as an art teacher at Kings School,Parramatta, then at the East Sydney Technical College. His paintings depict, in a clinically detailed draughtsmanlike way, aspects of the man-made urban environment and are almost surreal in their depiction of objects that are usually inconspicuous to a viewer of the scene.

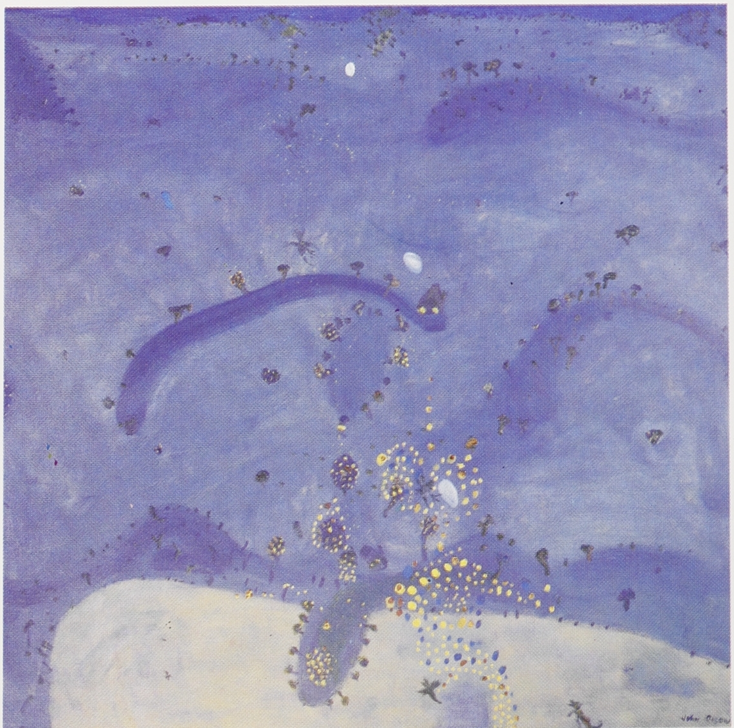
Spp on canvas, 74.5 x 150 cm, Art Gallery of New South Wales, purchased 1980





Oil and Collage on canvas, 200.5 x 259 cm, Art Gallery of New South Wales, purchased 1977

"Self-portrait in the Studio", by Brett Whiteley, 1976. Brett Whiteley was born in Sydney in 1939 and held his first one-man show in London in 1962. He is an abstract painter whose style has been most directly influenced by Piero della Francesca. The flowing, interlocking forms of the latter are reflected in the nude on the left of this picture and in the curving, elongated torso on the right. In this ingenious self-portrait, the only physical representations of the subject are Whiteley's reflection in the small looking-glass and his hand on the sketchpad, but the objects around him stand as images of the important forces in his life as an artist. The deep blue background, suggestive of depth and shadow, throws into relief a series of carefully grouped images, from which multiple associations can be read. The result is a self-portrait with much broader ramifications than a purely physical one.



"Nightfall, when wattle stains the doubting heart", by John Olsen, 1979. John Olsen was born in Newcastle in 1928 and studied at the Julian Ashton and the Orban art schools, Sydney. In 1956, he introduced his abstract expressionist style of painting which was to begin a new art movement. He is chiefly known for depicting his total experience when immersing himself in nature — whether it be in the Australian bush or on Sydney harbour — and portraying it in intimate detail. Olsen's landscapes have been described as "the sum of an infinite number of tiny incidents".

Oil on canvas, 167 x 159 cm, Art Gallery of New South Wales, purchased 1981

PROGRAMS FOR THE BICENTENNIAL YEAR OF 1988

This Section was contributed by the New South Wales Bicentennial Council.

INTRODUCTION

The Bicentennial Year of 1988 highlights the central importance of New South Wales in the history and the growth and development of Australia. It is first and foremost Australia's Bicentenary, but it is also the 200th birthday of the foundation City of Sydney and the foundation State of New South Wales.

The Government of New South Wales wholeheartedly endorsed the initiative of the Commonwealth Government to plan and co-ordinate a nationwide program of celebrations to commemorate the Bicentenary of European settlement in Australia.

In New South Wales, the bicentennial program was divided into three categories — the National Bicentennial Program, the New South Wales Government Departmental Program, and the New South Wales State Program.

NATIONAL PROGRAM

The significant features of the National Program, jointly funded by the Commonwealth and State Governments, are the six major capital projects described below:

Bicentennial Park (Homebush Bay)

Bicentennial Park is developed on 86.5 hectares of land at Homebush Bay, and consists of two main parts —

- an area of 33.5 hectares for passive recreation containing picnic facilities, jogging and bicycling tracks;
- an estuarine section comprising 53 hectares of mangroves with facilities for the observation of the wetlands and birds in natural habitats and a field centre for the study of the natural environment.

Newcastle Foreshore Beautification Scheme

The Newcastle Foreshore Beautification Scheme is designed to re-generate fifteen hectares of the industrial frontage of the seaport of Newcastle.

The most important objective of this redevelopment of the waterfront is to re-establish its interaction with the city centre.

Major elements of the scheme comprise:

- the reconstruction of the Queen's Wharf area with a tower incorporating a restaurant;
- an overhead pedestrian link to connect Queen's Wharf to the city.

Mount Tomah Botanical Gardens

Mount Tomah Botanical Gardens are situated on an eighteen hectare site on the Bell's Line of Road, 120 kilometres west of Sydney, and contain plantings of cool-climate species from around the world.

Parramatta Cultural Centre

The centre includes a 700-seat theatre and two smaller performance theatres of 200 and 100 seat capacities.

Wollongong Performing Arts Centre

The Centre consists of two theatres:

- a 500-seat theatre for musical comedy, dance, opera, variety, recitals, popular music, etc.;
- a 250-seat theatre suitable for drama, teaching rehearsals, etc.

Athol Bay Marine Life Protection Zone

The protection zone has been established in an area in Athol Bay near Taronga Park Zoo by means of a floating netted boom, where free-living seabirds, seals, penguins, turtles and other marine animals may live in a protected zone.

An area of land below the roadway is protected by a chain link fence to prevent predator invasion to allow the rearing of sea birds including gulls, cormorants and terns. A seal rookery will be accommodated on the beach and rock outcrops.

Provision is also made for pedestrian viewing bays and pathways.

NEW SOUTH WALES GOVERNMENT DEPARTMENTAL PROGRAM

The New South Wales Government Departmental Program involves an extensive program of major and minor capital works and a recurrent component designed to reflect the scope of public administration in New South Wales, highlighting the diversity of activities undertaken by the Government.

The major capital works are shown below:

Darling Harbour

The Sydney city centre has undergone a major transformation. Circular Quay, Macquarie Street and the old Haymarket area have been regenerated.

Government and private enterprise have united in these ventures. In particular, Darling Harbour, for long a derelict wasteland within the Haymarket complex, was chosen as the focal point for the New South Wales bicentennial celebration in 1988.

Darling Harbour is a $1,500m joint private and public enterprise which will have a profound and lasting impact on the future of Sydney.

It has transformed 50 hectares of derelict industrial land into a vital new entertainment, cultural and activity centre.

The *main elements* of Darling Harbour will include:

- Australia's largest exhibition centre
- Australia's premier convention centre
- a casino
- a five star International Hotel
- a new harbourside restaurant and retail complex
- the National Maritime Museum
- the National Aquarium
- new entertainment precinct
- parks, gardens, promenade, and harbourside walks
- Chinese garden.

Also within the new precinct stands the Entertainment Centre and Powerhouse Museum.

A futuristic monorail brings all these attractions within minutes of the city centre.

The enterprise also includes new boulevards, roads and pedestrian access ways and car parks accommodating 5,000 cars.

Upgrading of Macquarie Street

The upgrading of Macquarie Street in Sydney was designed to enhance the qualities of the many historic buildings and spaces that give the street its special character and reduce the visual impact of some of the less satisfactory elements of the street. Additional features include tree planting, widening and repairing footpaths, encouragement of outdoor cafes, completion of forecourt landscapes, restoration of iron fencing, floodlighting of historic buildings and removal of unsightly light poles and traffic signs.

Beautification of Circular Quay

Improvements in the urban design qualities of the area, improvement of public access to the foreshores, improvement of transport facilities and conservation of significant aspects of its environmental heritage are significant features of the newly-refurbished Circular Quay precinct.

Botanic Gardens Near Campbelltown

A native botanic garden and arboretum have been established on an area of approximately 470 hectares at Mount Annan near Campbelltown. The project includes a display of a great range of eucalypts, wattles, paper barks and other Australian trees as well as colourful flowers of the heaths, and inland and the more hardy rainforest trees and vines.

Art Gallery of New South Wales Extension

The extension was designed to expand the Gallery's display of the Australian collection including Aboriginal art as well as providing new special areas for international contemporary art and oriental art. A new 350 seat auditorium is a feature of the extension.

State Library of New South Wales

An essentially new building with eleven floors is now located for the State Library in Macquarie Street. New facilities include a reading room, public viewing and listening to documentary films, video cassettes, sound recordings as well as computer facilities and a new auditorium.

Australian Museum

The bicentennial extension was designed to provide for the Pacific Artefacts Exhibition, extensive storage space for the anthropological section and a large area for international temporary exhibitions. Other features include new exhibition areas for visiting exhibitions, education and teaching facilities.

The Power House Museum Stage 2

The Power House Museum forms a vital part of the greater Darling Harbour area and both benefits from, and adds to, the overall development. A walkway is planned to link the two and provide access to a Space Theatre associated with the Power House site. These developments will provide a major boost to tourism through their strategic location, and the range and quality of their attractions.

Stage 2 has created imposing and exciting exhibition spaces. Original walls and huge arched windows have been preserved, while cantilevered mezzanines reach into the cavernous interior. Stage 2 involved the renovation of the old Boiler and Turbine Houses, recycling the existing Switch House and adding a new West Building. In addition, there are spacious courtyards for outdoor events.

Other Capital Works

Other projects completed for the Bicentenary include the Federation Pavilion, Centennial Park; Police and Justice Museum, Phillip Street; 400 seat performance hall at Newcastle Conservatorium; the 450 kilometre Hume and Hovell Walking Track; Macquarie Woods Forest and Arboretum between Bathurst and Orange; a Music Bowl at Bankstown, and a number of environmental and conservation projects.

NEW SOUTH WALES STATE PROGRAM

The New South Wales Bicentennial Council was established by the Australian Bicentennial Authority to develop and co-ordinate a State Program to carry out the implementation of N.S.W. elements of the National Program, and to co-ordinate local bicentennial community committees which were established in each of the 176 local government areas throughout the State. In 1984 the New South Wales Government provided $70 million to the Council to develop the State Program.

The following areas were identified by the Bicentennial Council to provide the focus in developing the State Program:

Commemorative (bricks and mortar)
History and Education
Arts and Entertainment
Sport and Recreation
Local Government Initiative Grants.

While in excess of 1,700 applications were received under the *Commemorative Section* of the State Program, only 300 were successful. This represented at least one project for each local government area. Grants ranged from $5,000 to $1 million, and included many parks, gardens, fountains, restoration of historic buildings and churches, riverbank beautification, establishment of museums; restoration and reconstruction of historic vessels, and cultural and art centres. Special funds under this section were also made available for Aboriginal and ethnic projects.

The *History and Education* section included community education in conservation, genealogy, microfilming and photocopying historic documents and records, and the establishment of a Chair in Australian History at Sydney University. Included within this section, the Council has made available a grant of $5,000 towards this Year Book's photographic depiction of events and developments of significance in the State during the last 200 years.

The *Arts and Entertainment* segment of the State Program covered the whole spectrum of artistic endeavour in New South Wales, with regional spectaculars in Newcastle, Wollongong and Dubbo, touring performing arts programs, a major T.V. concert, popular entertainment, and artistic skills development.

Sport and Recreation included special grants to each local government area to undertake new sporting projects or to enhance existing programs. Funds were provided for youth, disabled and Aboriginal sport.

Each of the 176 *local government authorities* including Lord Howe Island, established a bicentennial community committee to develop locally-oriented activities for 1988. Such activities include carnivals, street parties, processions, local sporting events, festivals, concerts and provision of new facilities, or enhancement of existing facilities. Each local government area was eligible to receive a grant of $5,000 plus $1 per head of population as part of the State Program.

FURTHER REFERENCES

Annual Reports of: Department of Arts, Heritage and Environment, Australia Council, Australian Broadcasting Corporation, Special Broadcasting Service, Department of Communications, Australian Broadcasting Tribunal, Trustees of the Australian Museum, Museum of Applied Arts and Sciences, Library Council of New South Wales, Totalizator Agency Board, Trustees of the Art Gallery of New South Wales, Sydney Opera House Trust, National Parks and Wildlife Service of New South Wales, and Zoological Parks Board of New South Wales.

9

LAW, ORDER AND PUBLIC SAFETY

LAW AND CRIME

SOURCES OF LAW

The law in force in New South Wales consists of:

(a) Acts passed by the Parliament of the State of New South Wales, together with regulations, rules, orders, etc. made thereunder.

(b) Acts passed by the Parliament of the Commonwealth of Australia within the scope of its defined powers, together with regulations, rules, orders, etc. made thereunder. The scope of Commonwealth Government legislation is limited to the matters specified in the Australian Constitution. In all cases of conflict, valid Commonwealth laws override State laws.

(c) Common law (sometimes referred to as case law or judge-made law). This consists of judicial decisions of federal and State courts, and represents an important part of the law in force in New South Wales.

Australia Act 1986

The constitutional links that remained between Australia and the United Kingdom Parliament, government and judicial system were severed as from 3 March 1986, the date of proclamation of the Commonwealth Parliament's Australia Act 1986 and the simultaneous proclamation of an almost identical act of the United Kingdom Parliament also known as the Australia Act 1986. This action was the result of agreement between all State governments, the Commonwealth government and the United Kingdom government.

The legislation terminated the power of the United Kingdom Parliament to legislate for Australia; terminated the responsibility of the United Kingdom government in relation to state matters; removed the limitations upon the legislative powers of State Parliaments (except in the conduct of foreign affairs); and removed the remaining avenues of appeal from Australian courts to the Privy Council, thus making the High Court of Australia the final court of appeal for all Australian legal processes.

THE JUDICIAL SYSTEM

The organisation of the judicial system in Australia reflects the general structure of federalism; there are courts of state and federal jurisdiction. The state legal system is described in the subdivisions "The Judicial System" to "Lower Courts" inclusive, and the federal courts in the subdivision "Courts of Federal Jurisdiction" later in this chapter.

The characteristic features of the judicial system are:

(a) the law is enforceable in public courts;

(b) the judiciary is independent of control by the executive;

(c) officials concerned with the administration of justice do not enjoy any exemption from the law; and

(d) advocates are admitted to practice by the Supreme Court and are subject to control through that court.

Administration

In New South Wales, the duty of administering laws is allotted to ministers of the crown in their respective spheres. The Attorney General, the chief law officer in the state, is included among these ministers.

Manuscript of this chapter prepared in June 1987.

The Attorney General is also responsible for statute law consolidation and the administration of certain acts, including the Crimes Act, the Coroners Act, the Jury Act, the Justices Act, the Land and Environment Court Act, the Local Courts (Civil Claims) Act, the Sheriff Act, the Supreme Court Act and the Companies Code. He/she is the legal adviser of the government and ministers of the crown and initiates and defends proceedings by and against the state, and determines whether a bill of indictment should be found in cases of indictable offences. No person can be put on trial for an indictable offence unless a bill has been found, except where an ex officio indictment has been filed by the Attorney General, or where the Supreme Court has directed that an information be filed.

The Courts

The main *courts of civil jurisdiction* in New South Wales are Local Courts (whose jurisdiction includes civil claims of a minor nature), the District Court (whose jurisdiction is limited in amount), and the Supreme Court (which has jurisdiction limited only in respect of matters reserved for the original jurisdiction of federal courts).

The *courts of criminal jurisdiction* in the state include Local Courts (which deal summarily with less serious offences), the District Court (which tries the more serious offences), and the Criminal Division of the Supreme Court (which tries the most serious offences).

Apart from these courts of general jurisdiction, the New South Wales judicial system embraces various *legal tribunals* that deal with special matters.

New South Wales, as a State of the Commonwealth, forms part of the federal judicial system. Federal judicial power is vested in the High Court of Australia, in other federal courts and in state courts invested by the Commonwealth Parliament with federal jurisdiction.

In general, appeal lies, in appropriate cases, from a lower court to a higher court in New South Wales, and from the Supreme Court of New South Wales to the High Court of Australia by special leave of the High Court.

JUDGES, MAGISTRATES AND COURT OFFICERS

A judge cannot be sued for any act done in the performance of his judicial duties within the scope of his jurisdiction. He holds office until the age of seventy years at a salary commensurate with his high status and is granted a pension on retirement. He may not engage in the practice of the legal profession and may only be removed from office by the Crown for inability or misbehaviour. By these provisions, the judiciary is rendered independent of the executive.

Judges of the Supreme Court

Judges of the N.S.W. Supreme Court are styled "Justices" and are appointed by commission of the Governor on the advice of the Executive Council. A person may not be appointed a judge of the Supreme Court unless he is a barrister of not less than five years' standing or a solicitor of not less than seven years' standing. A judge may be removed from office by the crown for inability or misbehaviour if both houses of parliament vote in favour of removal.

A judge of the Supreme Court may be appointed (by commission of the Governor) to the Court of Appeal as a separate part of the Supreme Court. The President of the Court of Appeal and the other Judges of Appeal have seniority, rank and precedence immediately after the Chief Justice and before other Supreme Court judges and other persons with the status and rights of a judge.

Judges of the District Court

A barrister of not less than five years' standing or solicitor of not less than seven years' standing may be appointed by the Governor as a judge of the District Court. A district court judge may be removed from office by the Governor for inability or misbehaviour, after a hearing before the governor-in-Council.

Magistrates

The Local Courts Act 1982, which has been in operation since 1 January 1985, provides that persons may be appointed as magistrates provided they are qualified as a solicitor or barrister in New South Wales or possess an equivalent legal qualification from another State or Territory. A magistrate may be removed from office by the Governor for incompetence or misbehaviour. The Act provides for the appointment of a chief magistrate of the local courts and for one or more deputy chief magistrates. Magistrates are not subject to the Public Service Act 1979.

The selection of persons to be appointed as magistrates is in accordance with guidelines issued by the Premier applying to the appointment of persons to all statutory positions within the New South Wales government. These guidelines require that recommendations for appointments be submitted to Cabinet and it is only after cabinet approval that suitable recommendation is made to the Governor for the appointment of a particular individual.

In the metropolitan courts and in the Newcastle, Wollongong, Richmond and Windsor districts, the jurisdiction of local courts is exercised exclusively by magistrates. In other districts of the State, jurisdiction in local courts is exercised by magistrates wherever convenient, and otherwise by honorary justices of the peace in minor cases.

Justices of the Peace

Persons of not less than 18 years of age and not more than 70 years of age and of good character may be appointed as justices of the peace by commission. The office is honorary, and is held during the pleasure of the Crown. No special qualifications in law are required, but appointees must be persons of standing in the community and must take prescribed oaths.

Their duties include the issue of warrants for arrests, issue of summonses, administration of oaths and certification of documents. They have limited judicial powers (see that part of subdivision "Lower Courts" relating to "Local Courts — Criminal Jurisdiction").

JURY SYSTEM

Crimes prosecuted by indictment in the Supreme Court or District Court must be tried before a jury of twelve persons who find as to the facts of the case, the punishment being determined by the judge. Most civil cases heard in the Supreme Court or District Court may be tried before a jury of four persons (or of twelve in special cases), and the jury in such cases determines questions of fact and assesses damages. In motor vehicle accident cases however, a jury is not empanelled as a general rule; a jury is only empanelled if both parties apply or the court, on the application of one party, orders it. The jury in a coronial inquest consists of six persons. The procedure in relation to juries is governed principally by the Jury Act 1977, with other Acts regulating special cases.

LEGAL PROFESSION

The legal profession in New South Wales is controlled by rules of the Supreme Court, made under the Legal Practitioners Act 1898, which prescribe the conditions of entry to the profession, regulate studentships at law and specify the legal examinations that must be passed prior to admission to practice. Separate boards have been established to govern the admission of barristers and solicitors.

Any solicitor duly admitted to practice has the right of audience in all courts of New South Wales. The law provides for the hearing of charges of professional misconduct on the part of solicitors by the Solicitors' Statutory Committee of the Law Society, which has the power to make an order striking off the roll, suspending from practice, or imposing a fine on any solicitor; appeal lies to the Supreme Court from an order of the statutory committee. In addition, the Supreme Court exercises an inherent jurisdiction to supervise the conduct of solicitors, where necessary. Barristers are organised under the New South Wales Bar Association and their admission to practice is controlled, and their conduct supervised, by the Court of Appeal.

In New South Wales, a person cannot practise as both a solicitor and a barrister at the same time.

LEGAL AID

For actions under New South Wales jurisdiction, legal aid has been available in New South Wales since 1907.

The Legal Aid Commission of New South Wales is an independent corporation established under the Legal Aid Commission Act 1979, and provides legal aid in a wide range of civil and criminal law matters. In 1987, the operations of the Australian Legal Aid Office (N.S.W. Branch) were to be merged with the Commission and aid is now available in family law matters as well.

Legal advice is provided free of charge to persons who attend the commission's offices. Any person may make an application for legal aid in terms of the Act. However, the provision of aid is subject to certain eligibility criteria, for example, means and merit tests and policy guidelines. In granting a legal aid application the commission may require the applicant to contribute an amount towards the cost of the legal services sought. In addition, in civil matters, the commission may determine a maximum amount the applicant will be required to pay towards any costs eventually ordered by the court to be paid to any other party.

The Commission may provide legal aid through the services of its own officers or by arranging for the services of private legal practitioners (wholly or partly at the commission's expense) or by arranging the services of a public defender.

The Commission provides legal aid for certain classes of criminal proceedings involving State law. A duty solicitor scheme is administered by the commission at virtually all local courts in New South Wales. Salaried solicitors from the commission operate the scheme in the majority of local courts in Sydney, Newcastle, Gosford and Wollongong areas. The commission arranges for private solicitors to appear in local courts where salaried solicitors from the commission are not available. The commission provides legal aid, subject to a means test, to persons charged with summary offences or indictable offences which can be dealt with summarily. Legal aid, subject to a means and merit test, is also available for appeals to the District Court in its criminal jurisdiction, the Court of Criminal Appeal and the High Court of Australia.

Subject to a means test, legal aid is available to any person who has been committed for trial or sentence to the District Court or Supreme Court. Representation in these matters is normally provided by salaried solicitors of the commission who in some matters brief the public defender. Cases may be assigned to private solicitors and/or private counsel in special circumstances, for example, where a conflict of interest exists.

Legal aid is available from the commission, either by salaried solicitors or by assigning work to private practitioners, in a wide range of civil law matters involving State law. The commission also provides legal aid in children's court proceedings and for certain Mental Health Act proceedings.

Legal guidance and assistance is also provided in certain circumstances by clerks of the local courts, chamber magistrates, the Aboriginal Legal service, the National Roads and Motorists' Association's legal service, and other private, community and voluntary agencies.

The *Federal Proceedings (Costs) Act 1981* makes provision for eligible persons who were involved in proceedings in Commonwealth courts, or in appeals from these courts, to apply to the court for a reimbursement of all or part of their costs.

The Commission also provides a general problem-solving service of legal advice for persons with an element of need.

SUPREME COURT

The Supreme Court of New South Wales was established in 1823. It is the superior court of record in the State and its jurisdictions are civil, criminal and appellate.

The Supreme Court Act 1970 provides that the court shall have all jurisdiction necessary for the administration of justice in New South Wales. For the convenient despatch of business the court is divided into the Court of Appeal and nine divisions: Common Law, Equity, Admiralty, Family Law, Protective, Probate, Administrative Law, Commercial and Criminal. The rules of law and equity are now administered concurrently by the court and, where there is a conflict, the rules of equity prevail.

In *civil matters*, the court possesses original jurisdiction (exercised by one judge sitting alone or with a jury) over all litigious matters arising in the State (except where its jurisdiction is limited by statute), and in certain cases where extra-territorial jurisdiction has been conferred. Under the provisions of the (Commonwealth) *Judiciary Amendment Act 1976*, which amended the *Judiciary Act 1903*, the exclusive jurisdiction of the High Court to hear matters involving the limits *inter se* of the constitutional powers of the Commonwealth and the States was repealed, and this jurisdiction is now vested in the Supreme Court.

The court's appellate jurisdiction in civil matters is exercised by the Court of Appeal (constituted by three or more judges of appeal), which hears appeals from decisions of a single judge sitting in a division of the court, and from decisions of the District Court and courts of similar status. The divisions of the court also have jurisdiction to hear appeals from courts of status inferior to district courts. The procedure and practice are defined by statute or regulated by rules of court specified in the Supreme Court Act and as added to or amended by the rule committee established by that Act.

In *criminal matters*, the Supreme Court's original jurisdiction is exercised by a single judge. Its *appellate jurisdiction* is exercised by the Court of Criminal Appeal which was established by the Criminal Appeal Act 1912 and is constituted by three or more Supreme Court judges. An appeal to the High Court of Australia from the Court of Criminal Appeal may be made by special leave of the High Court.

The jurisdictions of the Supreme Court are exercised by a Chief Justice, the President of the Court of Appeal, 6 other judges of appeal and 29 other judges.

The civil jurisdiction of the court is described in the following pages and information regarding its criminal jurisdiction (exercised in its Criminal Division) is given in the subdivision "Higher Criminal Courts" later in this chapter. Details regarding the other divisions of the Supreme Court are contained in the 1986 issue of the New South Wales Year Book.

LAND AND ENVIRONMENT COURT

The Land and Environment Court, which is constituted under the Land and Environment Court Act 1979, hears and determines applications and objections against a wide variety of decisions or directions of local councils including decisions on applications for building approval, subdivision approval and town planning development consent. The court is also empowered to grant equitable relief and to deal with objections and prosecutions arising out of various environmental laws, as well as appeals and objections in respect of valuation matters. The court also has jurisdiction under the Aboriginal Land Rights Act.

The court is constituted as a superior court of record with a Chief Judge and three other judges, each with Supreme Court status, nine assessors having experience or qualifications in law, engineering, town planning, or associated disciplines and ten assessors appointed under the Aboriginal Land Rights Act.

STATE INDUSTRIAL TRIBUNALS

The principal industrial authority in the State is the Industrial Commission of New South Wales, which is constituted under the Industrial Arbitration Act 1940, and comprises a President and not more than eleven other members, each of whom has the same status and rights as a judge of the Supreme Court. The commission is charged with, *inter alia*, endeavouring to settle industrial matters by means of conciliation. Conciliation committees are established by the commission with power to enquire into industrial matters in particular industries or callings. Further information on industrial tribunals is published in Chapter 10 "Labour".

DISTRICT COURT

The District Court, constituted under the District Court Act 1973, is a single court with statewide civil, criminal and special jurisdiction. The court is composed of a Chief Judge and other judges appointed by the Governor and is assisted in the performance of its functions by an executive officer and by registrars and bailiffs attached to each of the proclaimed sitting places of the court.

Civil Jurisdiction

The civil jurisdiction of the court extends over a limited range of issues in equity and probate and over those actions cognizable on the common law side of the Supreme Court in which the property sought to be recovered, or the amount claimed, does not exceed $100,000. The findings of the District Court are intended to be final, but in certain instances new trials may be granted and appeals may be made to the Court of Appeal (Supreme Court).

The Arbitration (Civil Actions) Act 1983 and an amendment to the District Court Act provide for the determination by an arbitrator in certain civil actions instituted in the District Court. This is a system whereby smaller civil actions are compulsorily referred by the courts to arbitration by selected lawyers and the arbitrator's award becomes the judgement of the court.

Information regarding the criminal jurisdiction of the District Court is shown below in the subdivision "Higher Criminal Courts".

HIGHER CRIMINAL COURTS

The higher courts of criminal jurisdiction consist of the Criminal Division of the Supreme Court and the District Court. These courts deal with indictable offences (under State and Federal laws), i.e. the more serious criminal cases.

Trials of accused persons in higher criminal courts take place on indictment by the Attorney-General, usually after magisterial inquiry into the sufficiency of evidence for such trials.

All persons committed for trial on an indictable offence, other than those who have pleaded guilty before a magistrate and have been committed to a higher criminal court for sentence, must be tried before a judge with a jury of twelve.

Criminal Division of the Supreme Court

The jurisdiction of the Criminal Division of the Supreme Court is exercised by the Chief Judge of the Criminal Division and such other judge or judges as may be nominated by the Chief Justice to act in the Criminal Division. The Central Criminal Court exercises the criminal jurisdiction of the Supreme Court in Sydney and a judge of the Criminal Division of the Supreme Court presides at sittings of the Supreme Court in circuit towns. The more serious indictable offences committed in the metropolitan area and offences that may not be tried conveniently in the District Court or at sittings of the Supreme Court in the country are usually tried at the Central Criminal Court. Appeal from these courts lies to the Court of Criminal Appeal and, by special leave, to the High Court of Australia. A judge of the Supreme Court sitting in Sydney or at circuit towns may act as a Court of Gaol Delivery to hear and determine the cases of persons appearing on the lists of untried prisoners supplied by the gaolers of the State under rules of the Court.

District Court

The District Court has original criminal jurisdiction in respect of all crimes and misdemeanours other than the most serious offences which are reserved for the Supreme Court. The District Court sits at Sydney and other important centres throughout the State.

In addition to exercising its original jurisdiction, the court also hears appeals from local courts against all convictions or orders, except adjudication to imprisonment for failure to comply with an order for the payment of money, for the finding of sureties for entering into recognizance, or for giving security. Appeals from the District Court by persons convicted on indictment are heard by the Court of Criminal Appeal.

Compensation to Victims of Violent Crimes

In terms of the Criminal Injuries Compensation Act 1967, if a person has sustained injuries as a result of a criminal offence and payment of compensation awarded by a court is not forthcoming from the offender, the aggrieved person may apply for payment from the Consolidated Fund for amounts in excess of $100. The maximum compensation payable is $20,000. Where no person has been charged in connection with the offence, an ex-gratia payment may be made to the aggrieved person.

In 1985-86, 843 claims were met under the Act and payments totalled $5.6m, with the average payment per claim being $6,600; there were 70 claims in respect of which the maximum payment of $20,000 was made. In addition, 513 claims were met in 1985-86 under the associated ex-gratia scheme and payments totalling $3m (an average of $6,000 per claim) were made in respect of these claims; the maximum payment of $20,000 was made on 43 occasions.

In 1985-86, $102,000 was recovered from offenders.

WORKERS' COMPENSATION

A special and exclusive jurisdiction has been conferred on the Compensation Court of New South Wales to examine, hear and determine all matters and questions arising under the Workers' Compensation Act 1926, for which purpose it has the same powers to summon witnesses and receive evidence as a royal commissioner. The court is composed of a Chief Judge and such other judges and commissioners as the Governor appoints. It is a court of record and its judges have the same status, salary, pension rights and tenure of office as District Court judges. The court, created by the Compensation Court Act 1984, performs the judicial functions of the former Workers' Compensation Commission.

The decisions of the court on matters of fact are final and may not be challenged in any court. Appeals on questions of law or on the admission or rejection of evidence lie to the Supreme Court.

Commissioners hear applications for compensation where the amount claimed (excluding medical, hospital etc. expenses) does not exceed $40,000.

The State Compensation Board, a corporation created by the Workers' Compensation (Amendment) Act 1984, performs the administrative functions of the former Workers' Compensation Commission. Further details of the Board and related matters are shown in chapter 10 "Labour".

The administrative expenses of the court and the Board are met by levies on both insurers who undertake the employers' liability to pay compensation and self-insurers.

LOWER COURTS

Local Courts

These courts are held daily in large centres and regularly in small centres. Although known as courts of inferior jurisdiction, they are concerned with criminal and civil issues arising from Commonwealth and State legislation. Local Courts were established under the Local Courts Act 1982 and replaced Courts of Petty Sessions on 1 January 1985. Procedure generally is governed by the Justices Act 1902, the Local Courts (Civil Claims) Act 1970 and the Local Courts Act 1982.

The Local Courts Administration is responsible for the operation of local courts offices in court houses at 185 locations throughout the State. There are 27 court offices in the Sydney metropolitan area, some of which have been established for specialised purposes, including 5 children's courts dealing with juveniles, a special court for family law matters, a civil claims court, a traffic court, 2 coroners' courts, a court dealing in matters relating to Commonwealth legislation and the Chief Industrial Magistrates Court.

Local Courts — Criminal Jurisdiction

The criminal jurisdiction arises mainly under the (State) Crimes Act 1900 and the (Commonwealth) *Crimes Act 1914* plus a number of other acts that define offences and prescribe the penalties. Magistrates have exclusive jurisdiction in the metropolitan and suburban courts and in courts in the more populous country centres; in other districts, cases may be heard either by a magistrate or by two or more justices of the peace (where the charge is of a minor nature, in cases of emergencies, or where the magistrate will not be visiting the court on his circuit for some time).

The criminal jurisdiction is concerned with offences punishable summarily. These include most offences against good order and breaches of regulations, certain indictable offences which may be determined summarily with the consent of the accused, and some other offences, originally indictable, which may be determined summarily without the consent of the accused. The right to appeal to the District Court against a decision of a local court is referred to earlier in the subdivision "District Court". In indictable cases not dealt with summarily, a magisterial inquiry is held and the accused is committed for trial to a higher court if a *prima facie* case is established.

The N.S.W. Bureau of Crime Statistics and Research, administered by the (State) Attorney General's Department, issues regular statistical and research reports. Included in these are statistics, collected by the Bureau, on appearances of persons before local courts (known as Courts of Petty Sessions until 31 December 1984) under the State and Commonwealth Crimes Acts and under sections of other Acts that are of particular social relevance. Some minor offences, such as most traffic offences, are excluded from the collection.

The charge or information is regarded as being "determined" when an order (other than a committal order to a higher criminal court for trial or sentence) is handed down, which effectively removes that charge or information from the local courts' lists. Committals to a higher court for trial or sentence are excluded from the statistics.

Generally, when charges or informations against a person that relate to two or more offences are heard and determined at a court appearance, only the principal offence is recorded in the statistics. The "principal offence" is defined as the offence that attracted the severest penalty or, if the person was not convicted, the offence for which the severest penalty could have been imposed. However, all appearances at which a charge in respect of a drug offence or "drink and drive" offence is determined are recorded in that offence category, even when it is not the principal offence; the principal other offence is also recorded.

The following table shows details of the types of offences and outcome of proceedings in respect of selected charges determined before local courts (excluding children's courts) in 1985, as compiled by the Bureau of Crime Statistics and Research.

Local Courts, Criminal Jurisdiction: Appearances at which Charges Relating to Selected Offences were Determined *(a)* by Type of Offence and Outcome, N.S.W., 1985

	Conviction resulting in sentence of								
Offence	*Imprisonment (b)*	*Fine only*	*Recognizance (c) (d)*	*Rising of the Court*	*Offence proven but no conviction recorded*	*Recognizance forfeited*	*Charge withdrawn or dismissed*	*Not guilty*	*Total appearances determined*
Assaults, n.e.c. —									
Major assault	65	152	355	—	67	2	120	154	915
Minor assault	266	1,614	1,690	19	613	8	2,553	587	7,350
Sexual and related offences —									
Sexual offences	6	3	41	—	2	—	12	11	75
Prostitution and related offences	1	270	8	2	18	—	19	7	325
Fraud	249	1,000	885	19	201	13	202	146	2,715
Break, enter and steal	533	131	716	4	25	10	138	69	1,626
Larceny of motor vehicles	288	260	347	8	39	7	75	68	1,092
Stealing n.e.c.	707	6,061	1,572	39	1,449	24	278	456	10,586
Unlawful possession of property	308	1,186	382	29	124	12	245	356	2,642
Injury to property —									
Injury to animals	—	—	1	—	—	—	1	1	3
Other	94	1,556	348	21	266	5	140	158	2,588
Selected driving offences *(e)*	651	3,757	781	12	160	11	304	286	5,962
Offensive behaviour and related offences	16	2,324	141	14	313	16	174	137	3,135
Found with intent to commit offence, n.e.c.	43	23	44	1	8	3	9	22	153
Resist police officer *(f)*	13	413	48	2	53	—	31	24	584
Betting and gaming offences	—	459	4	1	42	—	6	17	529
Unlawful possession, etc. of weapons, etc.	39	779	89	5	124	2	67	47	1,152
Environmental offences	—	33	—	—	—	—	1	—	34
Other selected offences	301	4,284	143	50	250	14	462	146	5,650
Total selected offences	**3,580**	**24,305**	**7,595**	**226**	**3,754**	**127**	**4,837**	**2,692**	**47,116**
Drugs of addiction offences *(a)*	769	7,626	1,321	89	375	37	445	299	10,961
Drink and drive offences *(a)*	482	16,133	1,387	13	1,264	34	255	127	19,695

(a) See text preceding table. *(b)* Includes 238 persons sentenced to periodic detention for selected offences and a further 86 for drug offences and drink and drive offences. *(c)* Recognizances with or without probation and/or a fine. *(d)* Includes 1,387 persons placed on a community service order for selected offences and a further 642 for drug offences and drink and drive offences. *(e)* Comprises driving causing bodily harm, driving under the influence causing grievous bodily harm, dangerous driving, failure to stop after an accident, driving whilst disqualified, driving with licence cancelled or suspended. *(f)* Includes resist police officer, resist special constable, obstruct officer, obstruct person aiding officer and resist officer.

Random breath testing of motor vehicle drivers was introduced on a 3 year trial basis in December 1982 and made a permanent enforcement measure in December 1985. Police administer the test at the roadside. If a positive reading is obtained, the driver is then tested at a police station to determine the level of alcohol in his blood. If the level is 0.05 milligrams per millilitre or higher (0.02 mg per ml or higher for the holder of a learner's permit or a first year provisional driver's licence) the driver is charged with an offence.

In 1985-86, roadside screening tests were conducted on 1,327,907 drivers with 7,410 positive readings at the roadside. The subsequent test at the police station proved positive in 5,766 of these cases.

Local Courts — Civil Jurisdiction

The Local Courts (Civil Claims) Act 1970 confers on local courts a limited civil jurisdiction, which can be exercised only by a magistrate, to determine actions for the recovery of debts or damages in cases involving not more than $5,000.

Legislation operative since July 1983 has provided for some civil actions to be determined by an arbitrator. Further information is shown in the sub-division "District Court" earlier in this chapter.

In the civil jurisdiction, issues arise under Commonwealth and State legislation with respect to instalment credit, money-lending and hire purchase transactions, detention of property, taxation laws, rights of landlords and tenants, dividing fences, inebriates, lunacy, masters and servants, ancillary reliefs arising in family law (such as maintenance, division of property and, in certain cases, custody of children) and other matters.

A local court may order that all debts due by a garnishee to the defendant may be attached to meet a judgment debt and, by a subsequent order, may direct the garnishee to pay so much of the amount owing as will satisfy the judgment debt. A court may also issue a writ of execution to attach the personal property of the debtor and to allow for the sale of such property in satisfaction of the judgment debt.

In general, a decision of a local court exercising jurisdiction under the Local Courts (Civil Claims) Act is final, but an appeal may be made to the Supreme Court on the grounds that the decision is erroneous in law.

Children's Courts

Children's Courts exercise jurisdiction under the Child Welfare Act 1939. In certain proclaimed areas, a special magistrate is appointed to exercise the jurisdiction of the court. Elsewhere the jurisdiction of a children's court may be exercised by a magistrate or, in rare cases, by two justices of the peace. Children's court hearings are usually held *in camera.*

A children's court has jurisdiction over children aged 10 to 15 years (the minimum age of criminal responsibility being 10 years) and young persons (16 and 17 years of age) in regard to offences allegedly committed by them. Jurisdiction also extends to neglected and uncontrollable children and young persons and to truants (6 to 14 years of age).

The role of the court is reformative rather than punitive. It is endowed with extensive powers such as committal of children to institutions, to the care of persons other than the parents, or to the care of the Minister for Youth and Community Services to be dealt with as wards, etc.

Appeal from decisions of children's courts lies to the District Court or by way of stated case to the Supreme Court.

The following table shows the number of final court appearances of juveniles under 18 years of age in the children's courts of New South Wales in 1985-86, classified according to offence. The number of police cautions issued are also shown. The police may officially caution a juvenile as an alternative to charging him or her with an offence.

Final Court Appearances of Juveniles in Children's Courts and Police Cautions by Offence, N.S.W., 1985-86

Offence	*Final Court appearances*	*Police cautions issued*
Homicides/assaults	971	146
Sexual offences	110	20
Robbery and extortion	174	1
Break and enter	2,188	622
Motor vehicle theft	2,154	392
Other property offences	2,914	1,773
Offences against good order	3,315	272
Drug offences	594	223
Driving offences	1,156	—
Other offences	824	376
Total, all offences	14,400	3,825

Of the 14,400 final court appearances in 1985-86, the offence was proved against the juvenile in 12,901 cases and not proved in the remaining 1,499 cases.

Coroners' Courts

The office of coroner is regulated by the Coroners Act 1980.

Every magistrate, by virtue of his office, has the jurisdiction, powers, and duties of a coroner in all parts of the State and only magistrates may act as coroners within certain areas of the State. Outside these areas, the local clerk of the local court is normally appointed coroner.

Where a coroner is informed by a member of the police force of the death or suspected death of a person, he/she has jurisdiction to hold an inquest into the cause. Inquests are held into the causes of violent or unnatural deaths, of deaths in gaols, psychiatric hospitals and Department of Youth and Community Services institutions, and of the death of any person whilst in the custody of the police. A coroner may also make an inquiry concerning a fire. Inquests and inquiries are held by a coroner without a jury (except in special circumstances, when a jury of six persons is summoned).

Licensing Courts

Under the Liquor Act 1982, not less than 3 persons, each of whom is a magistrate, are appointed licensing magistrates. They constitute the Licensing Court for the State, and in the metropolitan area they also sit as magistrates constituting local courts to deal with offences arising under the Liquor Act and other legislation.

The licensing magistrates determine applications for new licences under the Liquor Act 1982 and new certificates of registration under the Registered Clubs Act 1976. They also deal with other applications relating to the removal or transfer of licences, variation of trading hours and disciplinary provisions under those Acts.

The licensing magistrates also constitute the Liquor Administration Board which is responsible for the regulation of licensed premises and applications and orders affecting the facilities provided on licensed premises.

Particulars relating to the operations of the licensing courts and the Liquor Administration Board are shown in Chapter 20 "Internal Trade".

Wardens' Courts (Mining)

Under the Mining Act 1973, the Coal Mining Act 1973 and the Petroleum Act 1955, the jurisdiction of wardens' courts embraces all matters of dispute (except industrial disputes) between mine operators (including corporations), their employees, parties interested in mines or lands proposed to be mined, and owners or occupiers of lands affected by mining. Wardens hear objections to applications for mining titles and assess compensation payable to landowners or occupiers by the holders of mining titles.

Community Justice Centres

Three community justice centres have been established under the Community Justice Centres Act 1983, to provide an alternative to the courts in settling disputes that arise between persons in some form of relationship (e.g. marriage, *de facto* relationship, family, neighbours, friends, workmates). These centres, which are administered by the Attorney General's Department, make no charge for their services, and provide a means of settling disputes through mediation if both parties are willing to participate. Suitable people are employed on a part-time basis for the role of mediators. Persons using the services of the centres are not legally disadvantaged should they later pursue the dispute through the usual legal processes. The service has now been extended by the training of panels of mediators to operate in areas not previously covered by the original centres in Sydney and Wollongong. In 1985-86, the centres dealt with 2,837 cases with agreement being reached in 83 per cent of mediated cases.

COURTS OF FEDERAL JURISDICTION

Under the Constitution of the Commonwealth of Australia, federal judicial power is vested in the High Court of Australia, in other federal courts created by the Commonwealth Parliament (the Family Court of Australia and the Federal Court of Australia) and in certain State courts. The nature and extent of the judicial powers of the Commonwealth is prescribed by Chapter III of the Australian Constitution.

High Court of Australia

The High Court of Australia consists of a Chief Justice and six other Justices. In terms of the *High Court of Australia Act 1979*, the High Court sits in Canberra, but may sit at other places within Australia and the external territories as occasion requires.

The High Court has both original jurisdiction (usually exercised by a single judge) and appellate jurisdiction (exercised by at least three judges). In some cases, the court's jurisdiction is concurrent with that of State courts; in other cases, it is exclusive. In its original jurisdiction, the High Court has exclusive jurisdiction in a variety of matters including matters arising under a treaty, in suits between the Commonwealth and a State or between States, and in matters in which a writ of *mandamus or prohibition* or an injunction is sought against an officer of the Commonwealth. The High Court's exclusive jurisdiction no longer includes matters involving the limits *inter se* of the constitutional powers of the Commonwealth and those of the States. The High Court has concurrent jurisdiction with State courts in other matters in which the Commonwealth (or a person suing or being sued on behalf of the Commonwealth) is a party, in matters between residents of different States, and in trials of indictable offences against Commonwealth laws.

In its appellate jurisdiction, the High Court hears appeals from decisions made in its original jurisdiction, from decisions of State Supreme Courts, State courts exercising federal jurisdiction, the Federal Court of Australia and the Family Court of Australia. The High Court has to give special leave before an appeal can be brought to it from another court.

The High Court is the final court of appeal for all Australian legal processes.

Federal Court of Australia

The Federal Court of Australia, established by the *Federal Court of Australia Act 1976*, exercises original and appellate jurisdiction in two divisions, namely the Industrial Division and the General Division. Matters arising under the *Conciliation and Arbitration Act 1904* are dealt with in the Industrial Division and all other matters including bankruptcy are dealt with in the General Division.

The Federal Court of Australia has appellate jurisdiction over decisions of single judges of the Court, decisions of the Supreme Courts of the Territories and certain decisions of State Supreme Courts exercising federal jurisdiction (e.g. under the Income Tax Assessment Act 1936 and the Patents Act 1952).

Family Court of Australia

The Family Court of Australia, created by the *Family Law Act 1975*, consists of a chief judge, senior judges and other judges. The court is a superior court of record with jurisdiction in matrimonial causes instituted or continued under the Family Law Act.

The Family Law Act allows the irretrievable breakdown of marriage, as evidenced by 12 months separation of the parties, to be the sole ground for dissolution. It also provides for the granting of a decree of nullity of a void marriage. The court recognises the importance of counselling and conciliation in settling problems arising from marital breakdown and separation.

Appeals in respect of decisions of single judges of the Family Court may be taken to the full court of the Family Court. In certain circumstances, appeals may be made to the High Court. Appeals from courts of summary jurisdiction may be made to the Family Court. An appeal does not lie from a decree of dissolution of marriage once the decree has become absolute.

Statistics of the number of divorces in New South Wales can be found in Chapter 4, "Vital statistics".

NEW SOUTH WALES ADMINISTRATIVE LAW

(New South Wales) Ombudsman

The Ombudsman Act 1974 provides for the appointment by the Governor, on the recommendation of the Minister, of an Ombudsman to investigate and report upon complaints made by persons, companies or other organisations against the administrative actions of public authorities, local government authorities and members of the N.S.W. Police Force. The ombudsman may also make investigations of his own volition.

Investigation is made in private and the ombudsman has the powers, authorities, protection and immunities conferred on a royal commissioner, including the power to enter and inspect premises used by a public authority and to inspect documents.

If conduct is found to be wrong, the ombudsman must report to the minister to whom the authority is responsible, to the head of the authority concerned and, where persons employed under the Public Service Act 1979 are involved, to the Public Service Board.

Anti-Discrimination Board and Equal Opportunity Tribunal

The Anti-Discrimination Board was established under the provisions of the Anti-Discrimination Act 1977 and comprises a president and two members. The board's functions are to investigate and conciliate complaints of discrimination, to undertake research and formulate policy on discrimination and human rights issues and to undertake community education on discrimination. If the board cannot conciliate in a complaint, it refers the complaint to the Equal Opportunity Tribunal, which normally comprises one judicial member and two lay members. The tribunal can hold a public inquiry into the complaint and can award damages or make other orders.

REGISTRATION OF LEGAL DOCUMENTS, ETC.

The Land Titles Office administers the Real Property Act, the Conveyancing Act, the Strata Titles Act, the Bills of Sale Act, the Liens on Crops and Wool and Stock Mortgages Act, and various provisions of the Crown Lands Consolidation Act. Registrations are made of transfers, leases, mortgages, conveyances and other deeds or instruments evidencing title to land; plans of subdivision and strata plans; bills of sale; liens on crops and wool; and stock mortgages.

Registration of documents under the Companies Act and the Business Names Act is the responsibility of the Corporate Affairs Commission.

Further details of the legislative and administrative procedures regulating the formation and conduct of incorporated companies and the role of the Corporate Affairs Commission are given in Chapter 24 “Private Finance”.

LAW REFORM COMMISSIONS

In New South Wales, a full-time Law Reform Commission was established under the provisions of the Law Reform Commission Act 1967 to make recommendations for the reform, simplification or modernisation of the law. The commission has reviewed many areas of the law, for example, in 1986, reports were made on the jury in criminal trials, human artificial insemination, the attachment of moneys deposited with building societies and credit unions, and wills (execution and revocation). The majority of the commission’s reports have been implemented by legislation.

As at 31 December 1986, the Commission’s program included major references on criminal procedure and artificial conception. In addition, the commission was working on the registration and certification of births and deaths, sale of goods, procedures before trial in the criminal jurisdiction, and the community law reform program.

Under the provisions of the *Law Reform Commission Act 1973*, the Commonwealth Government established the (Australian) Law Reform Commission to report on the review, simplification and modernisation of Commonwealth laws. The Commission makes reports on matters referred to it by the Commonwealth Attorney-General.

POLICE AND CORRECTIVE SERVICES

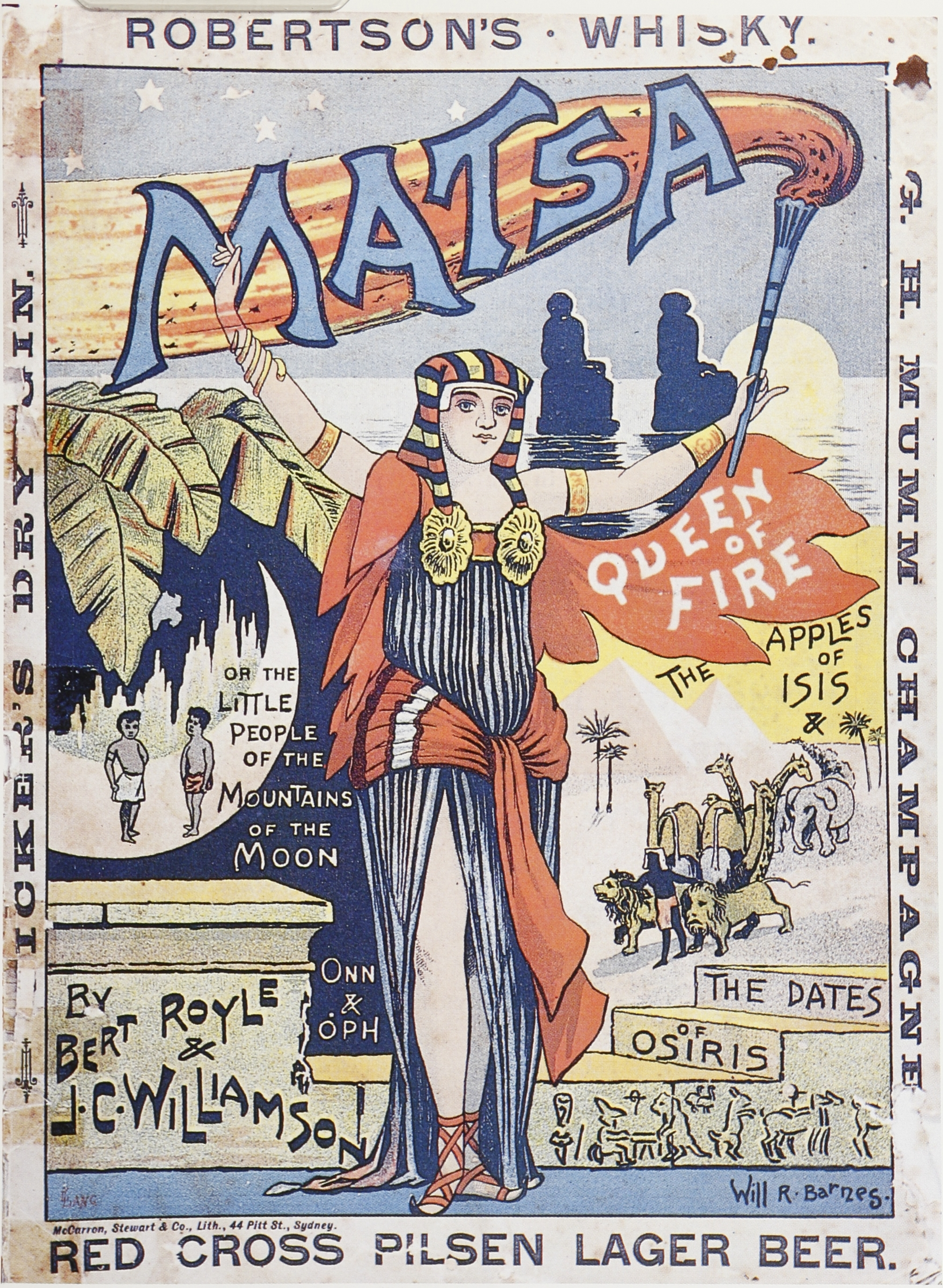
NEW SOUTH WALES POLICE FORCE

The New South Wales police force is organised under the Police Regulation Act 1899. The Commissioner of Police, who is subject to the direction of the Minister for Police and Emergency Services and who is a member of the Police Board of New South Wales, is responsible for the supervision of the police force, its operational command and day to day management. The functions of the board, which commenced in January 1984, are to promote the improvement of the police force and to assist in the maintenance of an efficient and effective police service.

For administrative purposes, the State is divided into two police areas (metropolitan and country) both comprising ten police districts, each of which is composed of a number of divisions. Headquarters of the country police districts are located at Albury, Bathurst, Dubbo, Goulburn, Lismore, Newcastle, Parkes, Tamworth, Wagga Wagga and Wollongong.

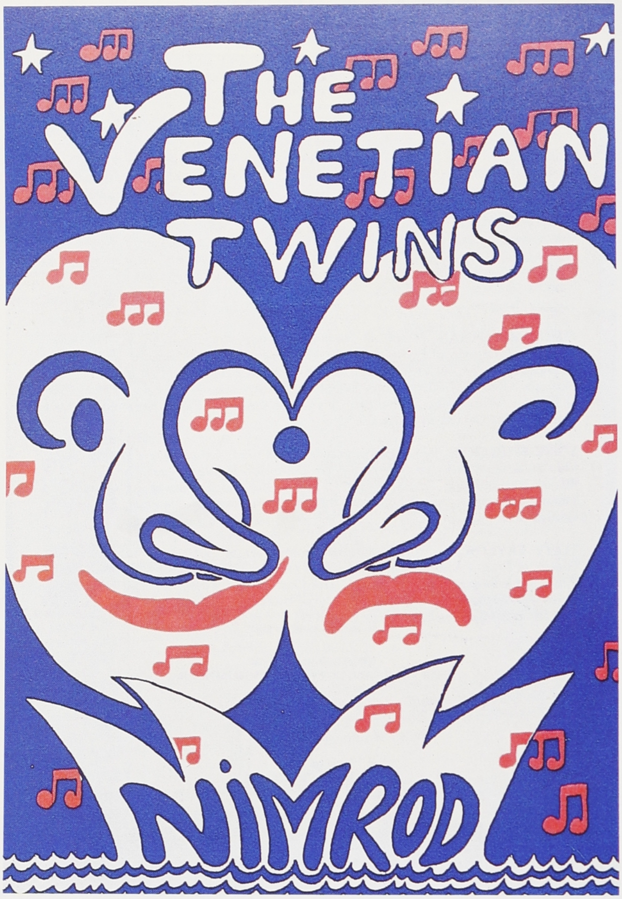
The primary duties of the police are protection of life and property, crime prevention and detection, supervision of gaming and betting, and the maintenance of public order. In addition, they perform many other duties in the service of the State; e.g. in country areas they act as clerks of local courts in small centres, motor registry officers, and inspectors under the Pure Foods and other Acts.

To allow the force to perform its primary duties more effectively, a number of specific-purpose branches and sections operate independently within the force and have status similar to a police district. Details concerning the functions of these branches are contained in the 1986 issue of the New South Wales Year Book.


ROBERTSON'S · WHISKY.
ICKEL'S DRY GIN.
G. H. MUMM CHAMPAGNE
MATSA
QUEEN OF FIRE
THE APPLES OF ISIS &
OR THE LITTLE PEOPLE OF THE MOUNTAINS OF THE MOON
ONN & OPH
BY BERT ROYLE & J. C. WILLIAMSON
THE DATES OF OSIRIS
Will R. Barnes.
McCarron, Stewart & Co., Lith., 44 Pitt St., Sydney.
RED CROSS PILSEN LAGER BEER.

Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

Program cover from the musical "Matsa, Queen of Fire". J.C. Williamson produced and co-wrote this extravaganza which was set in Ancient Egypt and featured song, dance and comedy together with elaborate scenery, costumes and lighting. It opened in 1897 at Her Majesty's Theatre, Sydney. Williamson and his partner of many years, George Musgrove, had recently become managers of that theatre and presented this production to inaugurate their management. James Cassius Williamson was an American who came to Australia with his wife in 1874 with a play called "Struck Oil" and remained to begin one of the most respected theatrical institutions in Australia, known as "The Firm". He was a versatile actor, highly competent as a stage director and had shrewd judgement and strong organisational abilities as a manager, all of which combined to make him the leading theatrical entrepreneur of his time in Australia. He died in 1913. In 1976, J.C. Williamson Ltd sold its theatres and a new company, not associated with the original company, leased the name under the title J.C. Williamson Productions Ltd.



Program cover from the 1979 Nimrod Theatre production of "The Venetian Twins" by Carlo Goldoni, adapted by Nicholas Enright and Terence Clarke and directed by John Bell. Sydney's Nimrod Theatre was opened in 1970 by a group led by John Bell and Ken Horler whose aim it was to recognise, encourage and use the best of Australian talent including writers, actors, directors, designers and technicians. Consequently, about sixty per cent of the plays produced have been Australian. The theatre has had a number of venues beginning with a small warehouse in Nimrod Street, Kings Cross. In 1974, the company moved to a large old factory in Surry Hills, at which the play depicted in the photo was produced, and finally in 1984, it moved to its current venue at the Seymour Centre at Darlington.

Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

Right: Program cover from the 1967 J.C. Williamson Ltd musical production of "Fiddler on the Roof" starring Hayes Gordon in the leading role.

Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

J. C. WILLIAMSON THEATRES LTD. presents
FIDDLER ON THE ROOF

Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

Don McMurdo, Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

Above: Dame Joan Sutherland, soprano singer and prima donna, in the 1985 Australian Opera production, "Adriana Lecouvreur" at the Sydney Opera House. Born in Sydney, she travelled to London in the early 1950's where she achieved great success at Covent Garden and has since performed around the world. She has appeared with the Australian Opera since 1974, and still performs both here and abroad. She was created a Dame in 1979.

Above left: Marie Carandini, 19th century Australian singer and impresario. She began her stage career in Sydney in 1845, then later went to Melbourne, eventually achieving success as a prima donna. In 1859, she was invited to sing at the opening of the Great Hall of the University of Sydney.

Left: John Bell and Helen Morse in the 1980 Sydney Theatre Company production of "Cyrano de Bergerac" at the Sydney Opera House Drama Theatre. The Company was formed in 1979 following the winding up of the Old Tote Theatre Company. Pier 4/5 Walsh Bay, a finger wharf built in 1914, was restored and converted by the N.S.W. Government to become the home of the Sydney Theatre Company in 1984.

Don McMurdo, Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

A photograph from the 1982 production "Wilderness". The Sydney Dance Company is recognised throughout Australia and overseas as one of the world's most innovative and creative performing arts groups. This reputation is based on the stature achieved over the past ten years of the Company's Artistic Director, Graeme Murphy, whose rise to fame as Australia's top choreographer goes hand in hand with that of his Company. Murphy was appointed to the position in 1976. Since that time he has created over forty original works for his troupe, including twelve full-length productions. The Company has undertaken nine overseas tours since 1980, and its considerable success with New York seasons in 1981 and 1985 created a springboard for the large popularity that the Company enjoys in Australia. The first full-length contemporary dance work to be created in Australia was "Poppy", and more recent productions have included "Rumours", "Daphnis & Chloe", "Boxes", "Some Rooms", and "Shining". The Company dancers are also well known to Sydney television audiences for their appearances in the "Living Flame" advertisements for the Australian Gas Light Company's promotion of natural gas.

Sydney Dance Company

Below: Aboriginal dance group at the Sydney Opera House in 1984. In recent years a number of Aboriginal and Islander dance groups have been formed to focus on traditional and/or contemporary music and dance forms. Some groups have made successful overseas appearances.

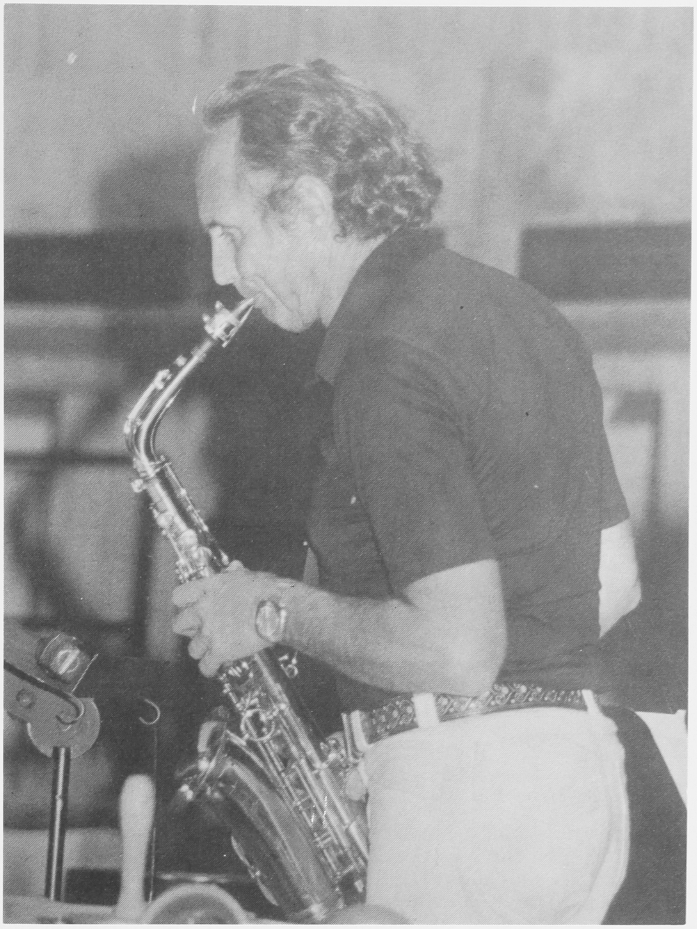
Don McMurdo, Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

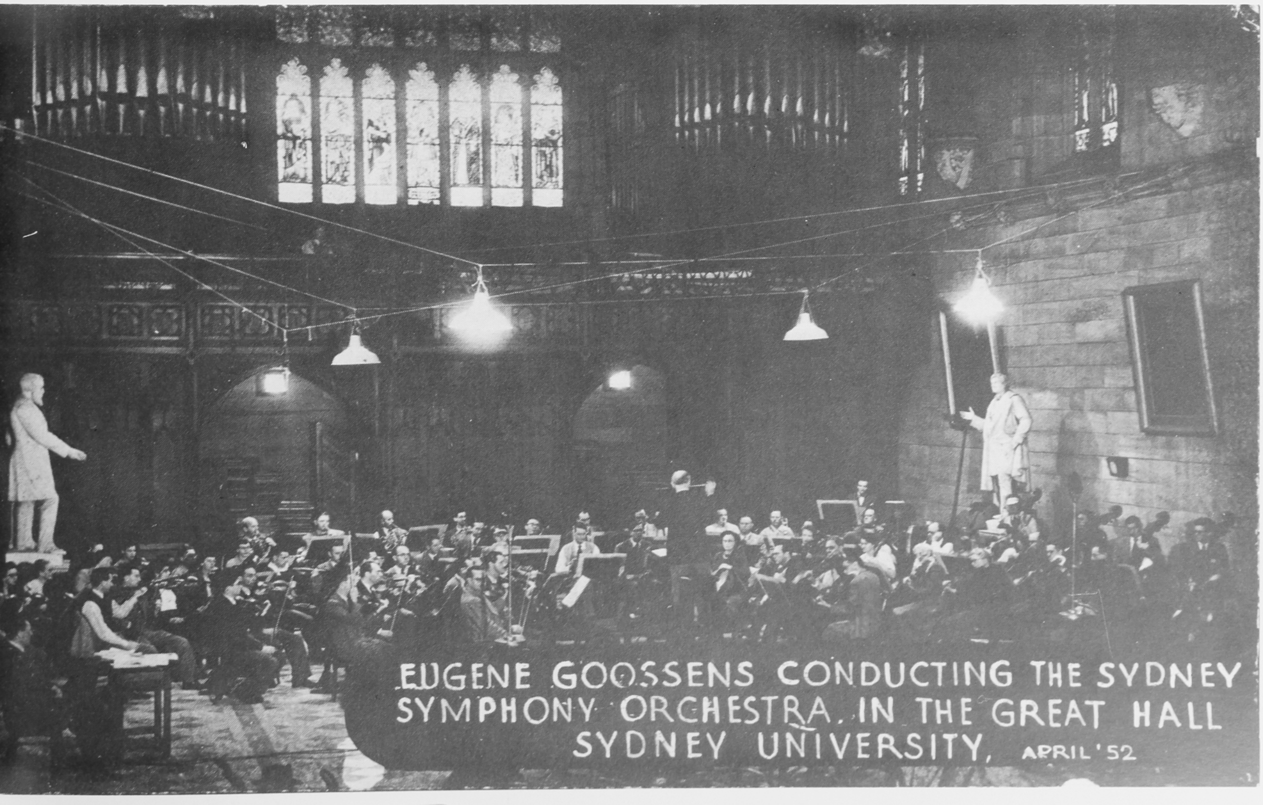
Right: Don Burrows — Australia's most famous jazzman. A professional musician for over forty years, he is internationally renowned as a flautist, clarinettist and baritone saxophonist. He has toured throughout Australia, including the outback, and overseas. He is currently Chairman of the Department of Jazz Studies at the N.S.W. Conservatorium of Music, a course which he sought to have established. He was awarded an MBE in 1973.

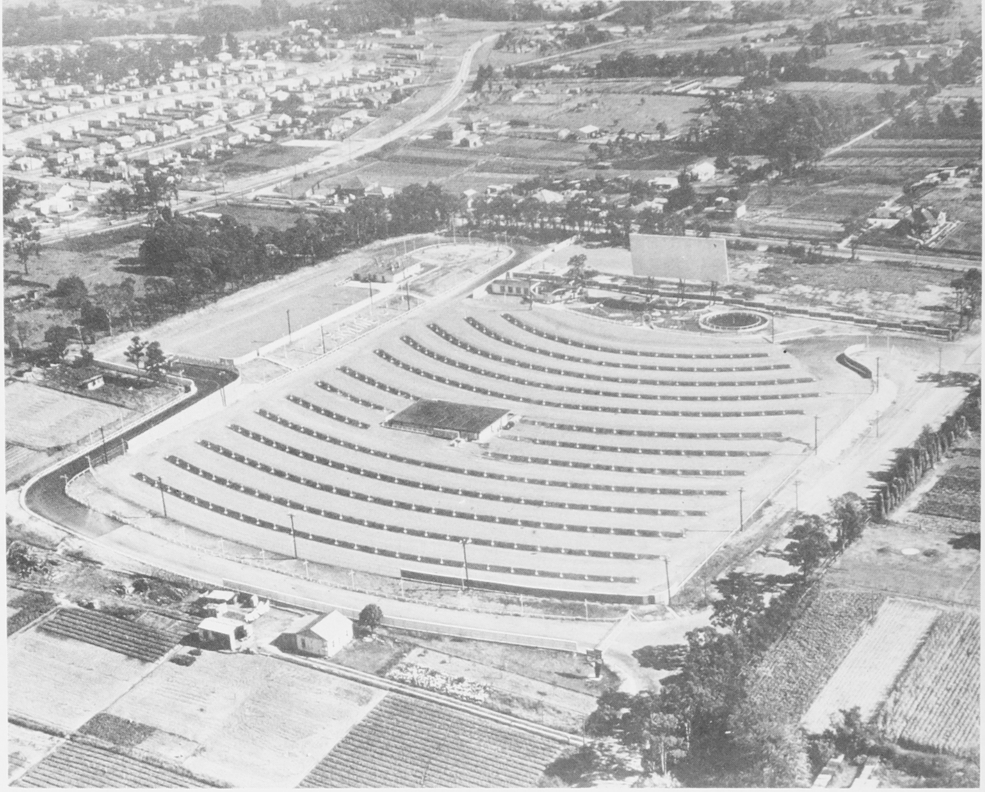
Sydney Opera House Trust

Below: The Sydney Symphony Orchestra was formed in 1946 out of the ABC Symphony Orchestra. Eugene Goossens, an English musician of Belgian descent, was jointly appointed as the first permanent conductor of the Orchestra in 1947 and as Director of the State Conservatorium of Music. He was also on the committee appointed to advise the government on the construction of an opera house in Sydney. He was knighted in 1955 and resigned from both his positions in 1957. In 1965, the orchestra undertook the first extensive overseas tour by an Australian orchestra.

National Library of Australia




EUGENE GOOSSENS CONDUCTING THE SYDNEY
SYMPHONY ORCHESTRA, IN THE GREAT HALL
SYDNEY UNIVERSITY, APRIL '52

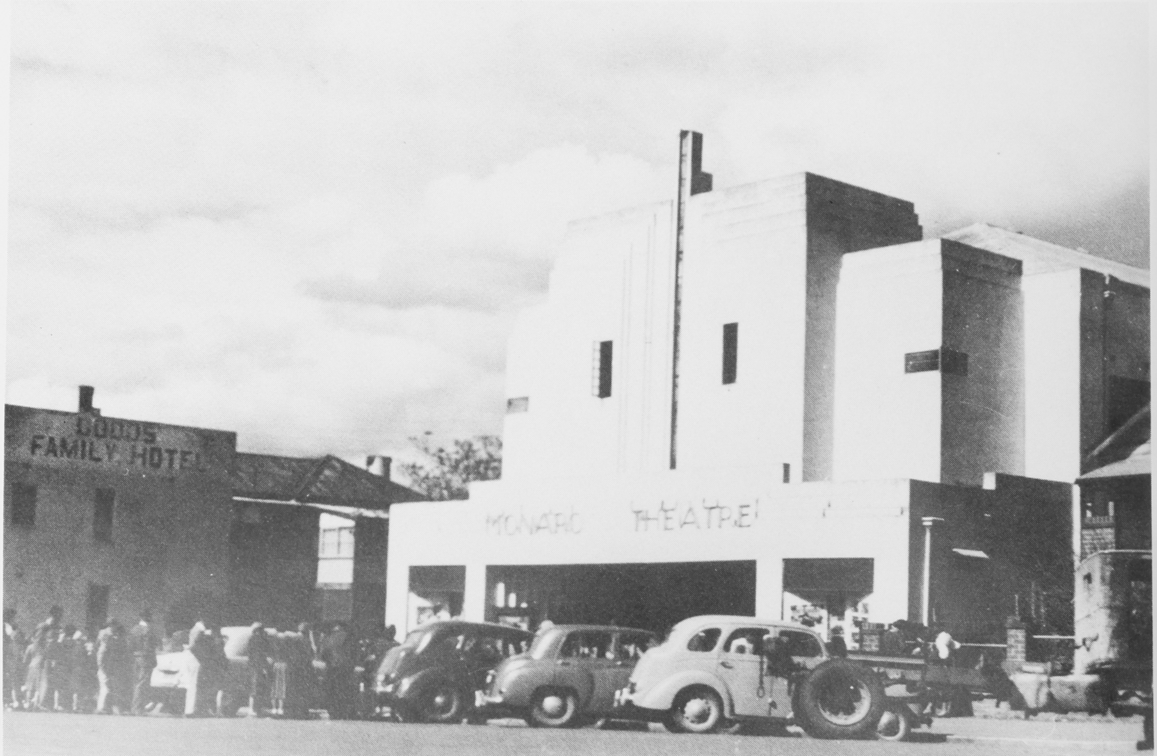


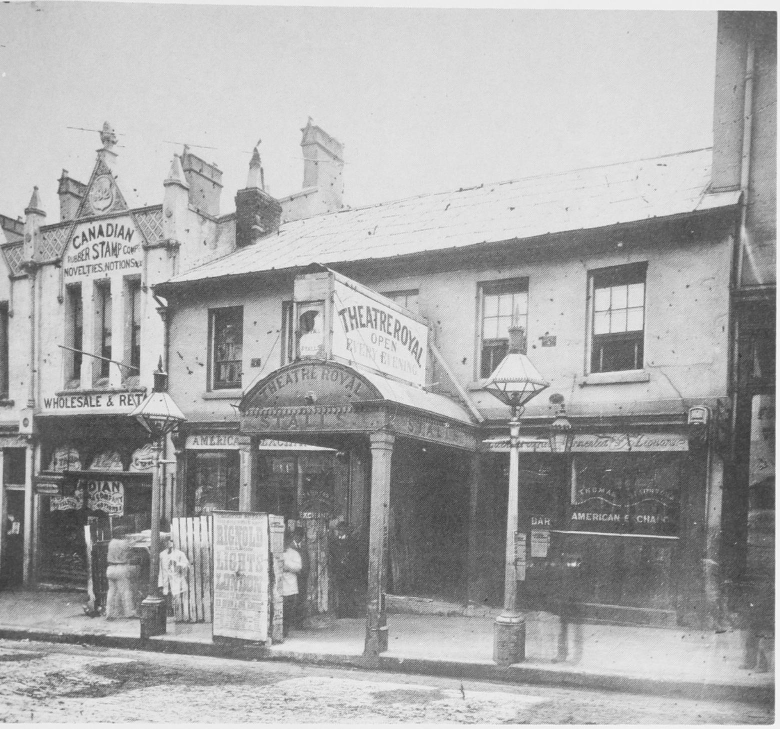
Greater Union Organization

Above: Aerial photograph of the Skyline Drive-In at North Ryde taken in 1956. This particular drive-in theatre is now the site of a landscaped office development. Drive-in theatres became increasingly popular between the 1950's and the early 1980's. In 1957, there were 9 drive-in theatres licensed in N.S.W. but by 1980, this figure had increased to 46. However, in recent years, this popularity has waned as a result of increasing competition from other forms of entertainment, especially video. This, coupled with increased operating costs and rising land prices, has made other forms of land development more lucrative. Thus, many of the State's drive-in theatres have now closed with only 26 still licensed in 1987.

Below: Crowds queue up for afternoon matinees at the Monaro Theatre in Cooma during the 1940's. Picture theatres at this time were a very popular form of entertainment. However, the introduction of television in 1956 had a depressing effect on film exhibition — audiences shrank and many theatres closed.

Mitchell Library, State Library of New South Wales



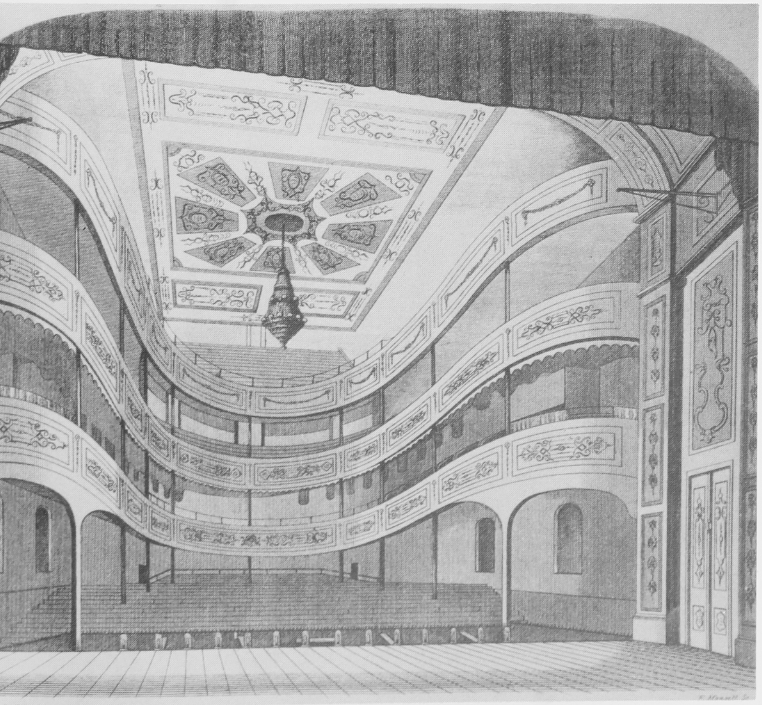


The Theatre Royal, Sydney, in 1882. This theatre opened in 1875 on the same site (fronting both Castlereagh and King Streets) as the Prince of Wales Theatre which was destroyed by fire. This photograph shows the King Street entrance to the stalls; patrons for the galleries entered from Castlereagh Street. A new Theatre Royal opened in Sydney's MLC Complex in 1976, replacing this theatre which was demolished amid storms of protest.

N.S.W. Government Printer

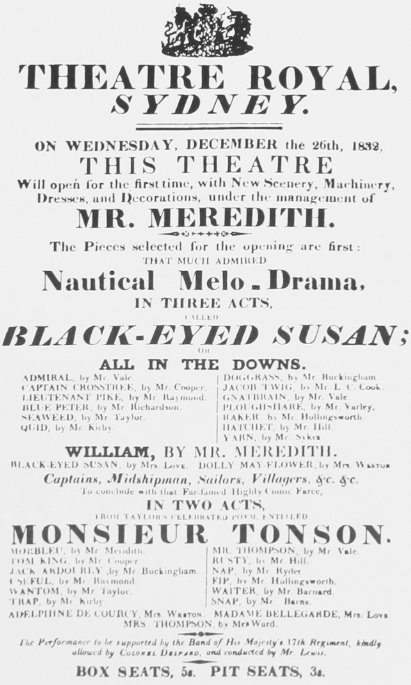
Below: The interior of the Royal Victoria Theatre, Sydney's second theatre, located in Pitt Street, which opened in 1838 with the production "Othello". The Royal Victoria was a grand theatre, capable of holding an audience of almost 2,000 people, the interior of which was arranged into the upper and dress circle with an extensive pit and gallery. It was destroyed by fire in 1880.

"Sydney in 1848", J. Fowles



The Theatre Royal, Sydney's first permanent theatre, was started by Barnett Levey, proprietor of the Royal Hotel in George Street. Its first performance, described on the playbill below, opened in the saloon of his hotel on an improvised stage in 1832. The actual theatre, accommodating nearly 1,000 people, was not opened until 1833. It closed in 1838 and was replaced by the new Royal Victoria Theatre.

Mitchell Library, State Library of New South Wales



THEATRE ROYAL,
SYDNEY.

ON WEDNESDAY, DECEMBER the 26th, 1832,
THIS THEATRE
Will open for the first time, with New Scenery, Machinery, Dresses, and Decorations, under the management of
MR. MEREDITH.
The Pieces selected for the opening are first:
THAT MUCH ADMIRED
Nautical Melo - Drama,
IN THREE ACTS,
CALLED
BLACK-EYED SUSAN;
OR
ALL IN THE DOWNS.

ADMIRAL, by Mr. Vale.
CAPTAIN CROSSTREE, by Mr. Cooper.
LIEUTENANT PIKE, by Mr. Raymond.
BLUE PETER, by Mr. Richardson.
SEAWEED, by Mr. Taylor.
QUID, by Mr. Kirby.
DOGGRASS, by Mr. Buckingham
JACOB TWIG, by Mr. L. C. Cook.
GNATBRAIN, by Mr. Vale.
PLOUGHSHARE, by Mr. Varley.
RAKER, by Mr. Hollingsworth
HATCHET, by Mr. Hill.
YARN, by Mr. Sykes.

WILLIAM, BY MR. MEREDITH.
BLACK-EYED SUSAN, by Mrs. Love. DOLLY MAY-FLOWER, by Mrs. Weston.
Captains, Midshipman, Sailors, Villagers, &c. &c.
To conclude with that Far-famed Highly Comic Farce,
IN TWO ACTS,
FROM TAYLOR'S CELEBRATED POEM, ENTITLED,
MONSIEUR TONSON.

MORBLEU, by Mr. Meridith.
TOM KING, by Mr. Cooper
JACK ARDOURLY ,by Mr. Buckingham.
USEFUL, by Mr. Raymond.
WANTOM, by Mr. Taylor.
TRAP, by Mr. Kirby.
MR. THOMPSON, by Mr. Vale.
RUSTY, by Mr. Hill.
NAP, by Mr. Ryder.
FIP, by Mr. Hollingsworth.
WAITER, by Mr. Barnard.
SNAP, by Mr. Barns.

ADELPHINE DE COURCY, Mrs. Weston. MADAME BELLEGARDE, Mrs. Love
MRS. THOMPSON, by Mrs Ward.

The Performance to be supported by the Band of His Majesty's 17th Regiment, kindly allowed by Colonel Despard, and conducted by Mr. Lewis.

BOX SEATS, 5s. PIT SEATS, 3s.

Sydney Morning Herald

Dennis Wolanski Library and Archives of the Performing Arts, Sydney Opera House

Above left: The "Oz for Africa" concert at the Sydney Entertainment Centre in 1985. Sixteen rock bands and numerous technicians and auxiliary helpers donated their services as part of the international "Live Aid" endeavour by the rock music industry to raise money, through a live television program, for food relief in drought-stricken Africa.

Above right: Johnny O'Keefe on stage in 1958. Regarded as Australia's first distinctive rock singer, J.O'K. began his career with a band called the "Dee Jays" in 1957. In the following year he had three records in Australia's Top 5 including "The Wild One", the first of his 32 hits. He also hosted "Six O'Clock Rock", the most popular of the rock and roll music television programs. He died in 1978.

Below: Part of the huge procession included as one of the 700 events in Tamworth's annual Country Music Festival. The 11 day festival, culminating on the Australia Day Long Weekend in January, attracts up to 35,000 people and has established Tamworth as the country music capital of Australia. The Australasian Country Music Awards, featured as part of the festival, have been presented since 1973. Performers who have won leading awards include Slim Dusty, Kevin Johnson and more recently, John Williamson.

Northern Daily Leader

Country Music Festival
COMMON
COUNTRY

The following table shows the number of police stations, police and other police staff in New South Wales in the last 6 years.

Police Stations, Police Force in Relation to Population, and other Police Staff, N.S.W.

At 30 June	*Police stations*	*Police*	*Population(a) to each member of police force*	*Number of other police staff(b)*
1981	465	9,271	565	1,952
1982	469	9,388	565	1,925
1983	470	9,812	546	2,047
1984	470	9,950	544	2,102
1985	470	10,460	524	2,108
1986	467	*(c)*10,743	p516	*(d)*2,233

(a) Estimated resident population. *(b)* Comprises parking patrol officers, bandsmen, security officers, matrons and civilian staff. *(c)* Authorised strength. *(d)* Approved staff number.

AUSTRALIAN FEDERAL POLICE

The Australian Federal Police, established under the *Australian Federal Police Act 1979*, in addition to performing normal police duties in the Australian Capital Territory, is the principal agency for the enforcement of federal laws and the protection of Commonwealth Government property throughout Australia. There is provision in the Act to enable the Commissioner of the Australian Federal Police to make arrangements with State Police Commissioners for the investigation of offences against State-made laws in relation to Commonwealth places.

CORRECTIVE SERVICES

In New South Wales, the Department of Corrective Services is responsible for the Prison Service and has administrative control of the Probation and Parole Service. The department is administered by the Corrective Services Commission.

Prisons

The Prisons Act 1952 provides for the establishment, regulation and control of prisons and the custody of prisoners, and charges the Corrective Services Commission with the direction of prisons and the custody of prisoners. Persons who are awaiting trial or the outcome of an appeal against conviction and/or sentence, and who have been ordered by the courts to be held in custody pending determination of their cases, are held in custody by the commission.

At 30 June 1986, there were 30 prison establishments in New South Wales. 7 of these establishments were classified as maximum security, 6 as medium security and 11 as minimum security; there were also 6 periodic detention centres. There were 4,253 persons (4,031 male, 222 females) held in prison custody at 30 June 1986.

Further details concerning the classification of prison establishments, periodic detention centres, work-release schemes, prison industries, and educational, cultural and vocational classes conducted within the prison system are contained in the 1986 issue of the New South Wales Year Book.

Remission of Sentences

By good conduct and industry, prisoners sentenced to one month or more may gain remission of one-third or one-quarter of their sentences. Prisoners sentenced for less than one month are detained for the full period. Periodic detainees may receive one-third remission of their sentences.

Legislation introduced to State Parliament in April 1986 allows a sentencing judge in a N.S.W. court to deny to a convicted person some, or all, of the reduction in sentence that the prisoner might have hoped to receive through the operation of the remission system. This enables the courts to control how long certain prisoners actually spend in gaol and ensures that certain prisoners serve the full term of their sentence. The judge can only make this order if it appears desirable by reason of the offence or the person's past history. Reasons for the order must be stated.

A prisoner may be released on a licence granted by the Governor. The conditions endorsed on the licence must be strictly complied with by the offender. Where a licence is revoked as a result of a breach of a condition, the offender may be returned to prison to serve the remainder of the sentence.

The Probation and Parole Service

The Probation and Parole Service is a division of the Department of Corrective Services and is concerned with criminal offenders aged 18 years or more (and with some juveniles placed on probation by children's courts and referred to the service for supervision). Its main functions are the preparation of pre-sentence reports to assist the courts in determining appropriate sentences; the supervision in the community of persons convicted of criminal offences and placed on probation; the provision of welfare and counselling services to prisoners and their families; the preparation of prisoners for release back into the community; the provision of reports on prisoners to assist the Parole Board and other releasing authorities; the supervision and guidance of parolees; the promotion in the community of the resettlement of released prisoners; and the development and administration of new correctional measures.

The service also administers the Community Service Orders Program under the Community Service Orders Act 1979, whereby the courts direct offenders to work under supervision for a designated number of hours for one of a range of selected community agencies.

An attendance centre program, providing an intensive intervention program for young offenders who can be maintained in the community without posing a serious risk, is administered by the service as an extension of the community service orders scheme. The Community Service Orders (Amendment) Act 1987 enables the courts to direct offenders, in addition to performing community work, to attend centres for special developmental programs.

Persons placed on probation by the courts, or released from prison on after care probation, parole or licence, live a normal life in the community during the period of conditional liberty. However, they are required to regulate their conduct, habits and lifestyle to conform with any conditions imposed by the court, Parole Board or other releasing authority, and are subject to the supervision and guidance of a probation or parole officer. Breach of probation or parole conditions may result in committal or return to prison.

At 30 June 1986, there were 412 probation and parole officers and 10,557 probationers, parolees or licence holders under active supervision in the community, including 345 juveniles under supervision on behalf of the Department of Youth and Community Services. There were also 1,700 persons under supervision on community service orders. During the year ended 30 June 1986, 9,389 pre-sentence reports for courts and 1,464 reports for the Parole Board and other releasing authorities were prepared. At 30 June 1986, there were 2,051 prisoners receiving the counselling, assessment and preparation-for-release services of the Probation and Parole Service.

Parole Board

Parole of prisoners in New South Wales is the responsibility of the New South Wales Parole Board, which is constituted under the Probation and Parole Act 1983. In accordance with the Act, courts are required to specify a non-parole period in the case of a person sentenced to imprisonment for more than 3 years, unless reasons are given for not doing so. The minimum non-parole period that may be specified is six months. These provisions do not apply to sentences of detention during the Governor's Pleasure, imprisonment for life, imprisonment pursuant to the Habitual Criminals Act 1957, periodic detention, or imprisonment in default of payment of a fine, penalty or maintenance order. At the expiry of the non-parole period, reduced by remissions in accordance with the regulations, the prisoner may be released on parole by the board subject to such conditions as the board may specify. The board may revoke a parole order if the parolee fails to comply with the conditions of the order and the offender may be returned to prison to serve the unexpired portion of the term of imprisonment.

Australian Institute of Criminology

The Australian Institute of Criminology, located in Canberra, was established as a statutory authority under the *Criminology Research Act 1971*. The institute is administered by a director and a board of management. The institute is funded by the Commonwealth Government and its functions involve criminological research, training and related activities at the governmental level.

FIRE BRIGADES AND STATE EMERGENCY SERVICES

FIRE BRIGADES

A Board of Fire Commissioners, constituted under the Fire Brigades Act 1909, controls the public services for the prevention and extinguishing of fires. Its jurisdiction extends over the Sydney metropolitan area and cities and towns in the rest of the State.

The cost of the board's services in each district is borne in the approximate proportions of three-quarters by the insurance companies and one-eighth each by the State government and the municipality or shire concerned. The contributions by insurance companies represent a percentage of the premiums received in respect of fire and certain other policies. The board establishes and maintains permanent fire brigades and authorises the constitution of volunteer town fire brigades that are subsidised out of the board's funds. These brigades are known collectively as the New South Wales Fire Brigades. At 31 December 1986, there were 74 fire stations in the Sydney Fire District and 248 fire stations in other districts. The authorised strength of brigade staff at 31 December 1986 in the Sydney Fire District was 2,154 officers and permanent firefighters, whose services are wholly at the board's disposal, and 60 volunteers. At that date the authorised strength of the country brigades was 441 officers and permanent firefighters and 3,178 volunteers.

In 1986, insurance companies contributed $92m and State and local governments each contributed $15m toward the total revenue of the N.S.W. Fire Brigades ($129m). Expenditure in the same year amounted to $134m.

The N.S.W. Fire Brigades attended 80,048 service calls in 1986; 44,516 calls were for fires, while 35,532 calls were to non-fire emergencies and false alarms.

Bush Fire Prevention and Control

Periodically, extensive property damage is caused by bush fires on the outskirts of Sydney and in other less densely settled areas in the State. The Bush Fires Act 1949 makes provision for the prevention, control, and suppression of bush fires, and for assistance in the financing of bush fire brigades.

Volunteer brigades, which are organised by the local government authorities, have defined territories of operation and wide powers in controlling and suppressing bush fires. In December 1986, there were 2,517 brigades with a total membership of 66,623.

The Minister for Police and Emergency Services is assisted by the Bush Fire Council in the consideration of matters relating to bush fire prevention and control throughout New South Wales. The co-ordinating committee of the Bush Fire Council ensures that the facilities provided by the fire fighting bodies and other sources in the eastern part of the State are co-ordinated to the most effective extent prior to and during the bush fire season, and particularly during bush fire emergencies.

Local government authorities must take all practicable steps to prevent outbreaks and the spread of fire in areas under their control.

STATE EMERGENCY SERVICES AND CIVIL DEFENCE

The State Emergency Services and Civil Defence Organisation of New South Wales operates under the provisions of the State Emergency Services and Civil Defence Act 1972.

The Director of State Emergency Services and Civil Defence is the Commissioner of Police. The director is responsible to the Minister for Police and Emergency Services for the preparation of plans to be followed in a range of emergency occurrences, including natural and man-made events, and for the civil defence of the State. The organisation provides assistance in emergencies and co-ordinates resources in the event of a declaration of a special emergency by the minister or a state of emergency by the Governor.

The State headquarters of the organisation is located in Sydney. There are 22 division headquarters which are provided by the State government and which are supervised by a volunteer controller appointed by the director. The controller is assisted by permanent staff. Almost two hundred local headquarters have been established by local government councils and these are supervised by volunteer controllers appointed by the director on the recommendation of the councils.

The organisation comprises a permanent staff of approximately 100 and has available in emergencies approximately 24,000 volunteers. The Commonwealth government provides several forms of assistance, including reimbursement of certain salaries, issue of equipment to local State Emergency Services organisations, funding of training at the Australian Counter Disaster College and assistance from the Australian Defence Forces where appropriate.

GOVERNMENT EXPENDITURE ON PUBLIC ORDER AND SAFETY

The following table shows current and capital expenditure by the State Government on public order and safety in New South Wales in the recent years.

State Government Expenditure on Public Order and Safety, N.S.W. ($'000)

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*r1985*	*1986p*
	Expenditure for current purposes					
Police services	270,158	315,177	338,316	366,214	405,383	434,102
Fire protection services	62,368	73,796	78,698	93,260	104,321	115,249
Law courts and legal services	83,889	95,216	109,273	123,204	147,207	136,900
Prisons and corrective services	84,882	97,932	102,784	112,448	122,177	138,021
Other public order and safety	r2,366	r2,577	r3,310	r3,510	3,998	5,962
Total current expenditure	**r503,663**	**r584,698**	**r632,381**	**r698,636**	**783,086**	**830,234**
	Expenditure for capital purposes					
Police services	12,474	12,175	12,574	22,963	34,937	37,013
Fire protection services	9,368	7,966	10,210	13,053	15,519	18,646
Law courts and legal services	4,856	3,580	3,108	4,262	15,546	37,910
Prisons and corrective services *(a)*	17,231	19,327	21,706	10,933	11,149	19,868
Other public order and safety	58	84	53	75	545	288
Total capital expenditure	**43,987**	**43,132**	**47,651**	**51,286**	**77,696**	**113,725**

(a) From 1986, includes expenditure on institutions for delinquent children (previously included in social security and welfare).

FURTHER REFERENCES

A.B.S. Publications (N.S.W. Office): *Higher Criminal Courts, New South Wales* (4502.1).
A.B.S. Publications (Central Office): *Crime Victims Survey, Australia, 1983, Summary* (4506.0); *Characteristics of Police, Prison and Reformatory Officers, Australia, Census of Population and Housing, 1981* (4510.0); *Characteristics of Inmates of Corrective Institutions, Australia, Census of Population and Housing, 1981* (4512.0).
Other Publications: Annual Reports of the State Compensation Board, N.S.W. Law Reform Commission, Australian Law Reform Commission, N.S.W. Police Department, Australian Federal Police, Public Trustee, Legal Aid Commission of New South Wales, Department of Corrective Services, Department of Youth and Community Services, Parole Board, Bush Fire Council of New South Wales, Board of Fire Commissioners, State Emergency Services and Civil Defence Organisation, Bush Fire Fighting Fund, Ombudsman of New South Wales, and Administrative Review Council; *Statistical Reports* of the Bureau of Crime Statistics and Research; Australian Institute of Criminology publication *Australian Prisoners;* and the New South Wales Law Almanac.

10

LABOUR

EMPLOYMENT

THE LABOUR FORCE

Complete statistics in respect of persons in the labour force for Australia, States and Territories and small geographic areas are available only from periodic censuses of population and housing. Between censuses, estimates of the labour force for the whole of Australia, for States and Territories and for certain regions of the States are obtained through the ABS program of population surveys.

The labour force at the 1981 Census (i.e. 30 June 1981) absorbed 2,365,995 persons, or 46.2 per cent of the total population of New South Wales. Of the total number in the labour force in 1981, 81.1 per cent were wage or salary earners, 4.6 per cent were employers, 7.8 per cent were self-employed, 0.8 per cent were unpaid helpers, and 5.6 per cent were unemployed. More detailed statistics are available from the specialist census publications.

Population Surveys

Population surveys are household sample surveys conducted throughout Australia. The surveys enable the regular collection of data on demographic, labour force and other characteristics of the population.

The principal survey of the population survey program is the monthly Labour Force Survey (LFS). Other population surveys comprise supplementary collections on various topics, which are conducted in conjunction with the LFS, and Special Supplementary Surveys, conducted in some detail on various topics and independently of the LFS. For a description of the scope, methodology and standard errors of the population surveys, see Appendix B: *Population Surveys*, in the New South Wales Year Book, 1986.

The Labour Force Survey (LFS)

Scope and Definitions

The LFS includes all persons aged 15 and over, except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from censuses of population and housing and estimated population statistics, overseas residents in Australia and members of non-Australian defence forces (and their dependants) stationed in Australia.

Survey information is used to classify the labour force status of the population (i.e. as employed, unemployed, or not in the labour force), according to concepts and definitions which conform closely to those recommended by the International Labour Office. The labour force category to which a person is assigned depends on the actual activity undertaken (i.e. whether working, looking for work, etc.) during the survey week (i.e. the week immediately preceding that in which the interview took place). Demographic information (age, sex, marital status, etc.) is also collected so that cross-classifications with the labour force data can be made. The questions asked each month are included in the ABS publication *Information Paper: Questionnaires Used in the Labour Force Survey* (Catalogue No. 6232.0)

Manuscript of this chapter prepared in July 1987.

The principal LFS definitions, which relate only to those persons within scope of the survey, are currently as follows:

(a) The *labour force* comprises all those who, during the survey week, were employed or unemployed as defined in *(b)* and *(c)* below.

(b) *Employed persons* comprise all those aged 15 and over who, during the survey week:
  - *(i)* worked for one hour or more for pay, profit, commission or payment in kind (including employees, employers and self-employed persons) in a job or business, or on a farm; or
  - *(ii)* worked for one hour or more without pay in a family business or on a farm (i.e. unpaid family helpers); or
  - *(iii)* were employees who had a job but were not at work and were: on paid leave; on leave without pay for less than four weeks up to the end of the survey week; stood down without pay because of bad weather or plant breakdown at their place of employment for less than four weeks up to the end of the survey week; on strike or locked out; on workers' compensation and expected to be returning to their job; or receiving wages or salary while undertaking full-time study; or
  - *(iv)* were employers, self-employed persons or unpaid family helpers who had a job, business or farm, but were not at work.

(c) Unemployed persons comprise all those aged 15 and over who were not employed during the survey week, and:
  - *(i)* had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week, and: were available for work in the survey week, or would have been available except for temporary illness (i.e. lasting for less than four weeks to the end of the survey week); or, were waiting to start a new job within four weeks from the end of the survey week and would have started in the survey week if the job had been available then; or
  - *(ii)* were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the survey week (including the whole of the survey week) for reasons other than bad weather or plant breakdown.

(d) Persons not in the labour force comprise all those persons who do not meet the criteria that would enable them to be classified as being in the labour force (i.e. they are neither "employed" nor "unemployed".

A revised questionnaire was introduced commencing with the April 1986 survey. Following the introduction of this questionnaire, the definition of employed persons was extended to include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e. unpaid family helpers). This aligns the Australian labour force concepts with a set of changed international definitions adopted by the International Labour Office at the 13th Conference of Labour Statisticians in October 1982. Previously, such persons who worked 1 to 14 hours or who had such a job but were not at work were defined as either unemployed or not in the labour force, depending on whether they were actively looking for work.

The following tables show labour force statistics derived from the LFS for N.S.W. and regions of the State. The estimates conform to population estimates which take account of the 1981 Census of Population and Housing. Estimates from October 1982 are compiled wholly on a place of usual residence basis. Prior to October 1982, the estimates were based on a combination of place of enumeration and place of usual residence.

Civilian Population Aged 15 and Over: Labour Force Status, N.S.W., Month of May

Particulars	*Unit*	*1982*	*1983*	*1984*	*1985*	*1986 (a)*	*1987 (a)*
				Males			
Civilian population aged 15 and over	'000	1,964.3	1,992.9	2,020.7	2,043.6	2,083.4	2,131.3
Labour force	'000	1,519.2	1,529.3	1,537.8	1,548.6	1,577.9	1,585.9
Employed	'000	1,434.0	1,367.0	1,391.6	1,407.0	1,450.5	1,448.9
Unemployed	'000	85.1	162.3	146.2	141.6	127.4	137.0
Not in labour force	'000	445.1	463.5	482.9	495.1	505.5	545.3
Unemployment rate *(b)*	per cent	5.6	10.6	9.5	9.1	8.1	8.6
Participation rate *(c)*	per cent	77.3	76.7	76.1	75.8	75.7	74.4
				Females			
Civilian population aged 15 and over	'000	2,037.5	2,068.8	2,093.5	2,117.3	2,156.4	2,202.1
Labour force	'000	888.1	920.0	946.2	951.4	1,010.3	1,049.5
Employed	'000	822.8	815.7	856.6	866.9	924.2	952.4
Unemployed	'000	65.3	104.3	89.6	84.6	86.1	97.1
Not in labour force	'000	1,149.4	1,148.8	1,147.3	1,165.8	1,146.0	1,152.6
Unemployment rate *(b)*	per cent	7.4	11.3	9.5	8.9	8.5	9.3
Participation rate *(c)*	per cent	43.6	44.5	45.2	44.9	46.9	47.7
				Persons			
Civilian population aged 15 and over	'000	4,001.8	4,061.6	4,114.1	4,160.9	4,239.8	4,333.4
Labour force	'000	2,407.2	2,449.3	2,484.0	2,500.0	2,588.2	2,635.4
Employed	'000	2,256.8	2,182.7	2,248.2	2,273.9	2,374.7	2,401.3
Unemployed	'000	150.4	266.6	235.8	226.1	213.6	234.1
Not in labour force	'000	1,594.5	1,612.3	1,630.1	1,660.9	1,651.5	1,698.0
Unemployment rate *(b)*	per cent	6.2	10.9	9.5	9.0	8.3	8.9
Participation rate *(c)*	per cent	60.2	60.3	60.4	60.1	61.0	60.8

(a) Estimates are based on the revised definition of employed persons introduced in the April 1986 survey. *(b)* The number of unemployed in each group as a percentage of the labour force in the same group. *(c)* The labour force in each group as a percentage of the civilian population aged 15 and over in the same group.

Employed Persons *(a)*: Industry Division *(b)*, N.S.W., Month of May ('000)

Industry division	*1982*	*1983*	*1984*	*1985*	*1986 (c)*	*1987 (c)*
			Males			
Agriculture, forestry, fishing and hunting	90.7	97.3	94.0	81.4	91.1	84.4
Manufacturing	351.4	303.8	302.5	303.9	309.7	302.8
Construction	148.0	120.9	134.9	138.5	140.3	155.2
Wholesale and retail trade	256.1	254.5	244.4	267.2	280.7	262.2
Transport and storage	109.4	105.9	111.3	118.5	107.9	111.1
Finance, etc.	117.0	117.6	122.7	130.8	138.0	143.6
Community services *(d)*	112.8	122.7	122.3	134.0	130.4	147.2
Other industries *(e)*	248.6	244.2	259.4	232.5	252.3	242.5
Total males	**1,434.0**	**1,367.0**	**1,391.6**	**1,407.0**	**1,450.5**	**1,448.9**
			Females			
Agriculture, forestry, fishing and hunting	30.2	28.7	28.3	32.3	35.9	28.3
Manufacturing	122.0	107.7	104.0	100.1	106.9	104.0
Construction	14.0	16.7	19.2	19.5	19.2	18.8
Wholesale and retail trade	193.5	196.2	193.9	207.4	215.6	205.7
Transport and storage	22.8	21.4	25.7	23.2	24.5	25.6
Finance, etc.	106.8	108.3	121.3	118.8	131.9	143.2
Community services *(d)*	206.6	210.1	227.7	221.8	240.5	268.9
Other industries *(e)*	126.8	126.7	136.6	143.8	149.7	157.9
Total females	**822.8**	**815.7**	**856.6**	**866.9**	**924.2**	**952.4**
			Persons			
Agriculture, forestry, fishing and hunting	120.9	126.0	122.3	113.8	127.0	112.7
Manufacturing	473.4	411.5	406.6	404.1	416.6	406.7
Construction	162.0	137.6	154.0	158.0	159.5	174.1
Wholesale and retail trade	449.6	450.8	438.3	474.6	496.3	467.9
Transport and storage	132.2	127.2	137.0	141.7	132.4	136.7
Finance, etc.	223.9	225.9	244.0	249.7	270.0	286.8
Community services *(d)*	319.4	332.8	350.0	355.7	370.9	416.1
Other industries *(e)*	375.3	370.9	396.1	376.3	402.1	400.4
Total persons	**2,256.8**	**2,182.7**	**2,248.2**	**2,273.9**	**2,374.7**	**2,401.3**

(a) Aged 15 and over. *(b)* Estimates shown for 1985, 1986 and 1987 are classified according to the *Australian Standard Industrial Classification (ASIC) 1983 edition* (Catalogue No. 1201.0), while those for 1982, 1983 and 1984 are classified according to the 1978 edition of ASIC. *(c)* Estimates are based on the revised definition of employed persons introduced in the April 1986 survey. *(d)* Includes Education, Health Services, Law and Order, and Religious and Social Welfare Services. *(e)* Comprises Mining, Electricity, Gas and Water, Communication, Public Administration and Defence, and Recreation, Personal, and Other Services.

Civilian Labour Force Aged 15 and Over: Unemployment Rate*(a)* and Participation Rate *(b)*, Regions of New South Wales, Month of May (per cent)

	Unemployment rate		*Participation rate*	
Region	*1986*	*1987*	*1986*	*1987*
New South Wales	8.3	8.9	61.0	60.8
Sydney Statistical Division *(c)*	7.1	7.4	62.5	62.3
Central Sydney and Inner Western Sydney Subdivisions	10.0	8.2	62.0	61.1
Southern Sydney Subdivision	5.2	6.9	59.0	61.3
South Western Sydney Subdivision	8.5	9.7	68.2	63.8
Western Sydney Subdivision	7.7	9.5	63.3	63.5
Northern Sydney Subdivision	4.0	3.2	65.9	65.7
Balance of New South Wales *(d)*	10.3	11.6	58.6	58.3
Hunter Statistical Division	8.6	11.6	56.3	60.2
Newcastle Statistical District	8.6	12.0	56.8	60.2
Illawarra and South-Eastern Statistical Divisions	11.5	11.6	59.1	57.5
Wollongong Statistical District	12.8	13.4	60.6	59.3
Richmond-Tweed and Mid-North Coast Statistical Divisions	14.3	15.4	52.3	52.0
Northern, North-Western and Central West Statistical Divisions	9.8	10.3	63.8	59.0
Murray and Murrumbidgee Statistical Divisions	8.0	9.7	63.3	65.5

(a) The number of unemployed in each group as a percentage of the labour force in the same group. *(b)* The labour force in each group as a percentage of the civilian population aged 15 and over in the same group. *(c)* Includes Gosford-Wyong Subdivision. *(d)* Includes Far West Statistical Division.

Supplementary Topics

Supplementary topics are described in detail in the ABS publication *Information Paper: Population Survey Program, January 1986* which is available free, on request, from the ABS.

Statistics from a selection of supplementary topics covered regularly as part of the population survey program are shown in the following sections.

Persons Not in the Labour Force

The following table presents summary statistics on persons not in the labour force in September 1986.

Civilian Population Aged 15 and Over: Labour Force Status, N.S.W., September 1986

	Number ('000)			*Proportion (per cent)*		
Particulars	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Civilian population aged 15 and over	**2,098.5**	**2,171.1**	**4,269.6**	**100.0**	**100.0**	**100.0**
Labour force	**1,581.5**	**1,018.2**	**2,599.7**	**75.4**	**46.9**	**60.9**
Employed	1,449.9	922.3	2,372.2	69.1	42.5	55.6
Unemployed	131.6	95.8	227.5	6.3	4.4	5.3
Persons not in the labour force	**517.0**	**1,153.0**	**1,669.9**	**24.6**	**53.1**	**39.1**
With marginal attachment to the labour force	56.6	207.6	264.3	2.7	9.6	6.2
Wanted to work and were actively looking for work	*9.0*	*8.9*	*17.9*	*0.4*	*0.4*	*0.4*
Were available to start work within four weeks	*(b)*	*(b)*	*7.0*	*(b)*	*(b)*	*0.2*
Were not available to start work within four weeks	*6.1*	*4.8*	*10.9*	*0.3*	*0.2*	*0.3*
Wanted to work but were not actively looking for work and were available to start work within four weeks	47.6	198.8	246.4	2.3	9.2	5.8
Discouraged jobseekers	*7.4*	*25.2*	*32.5*	*0.4*	*1.2*	*0.8*
Other	*40.3*	*173.6*	*213.9*	*1.9*	*8.0*	*5.0*
Without marginal attachment to the labour force	460.3	945.3	1,405.7	21.9	43.5	32.9
Wanted to work but were not actively looking for work and were not available to start work within four weeks	*26.5*	*71.3*	*97.8*	*1.3*	*3.3*	*2.3*
Did not want to work	*397.0*	*818.1*	*1,215.1*	*18.9*	*37.7*	*28.5*
Permanently unable to work	*12.2*	*10.9*	*23.1*	*0.6*	*0.5*	*0.5*
Institutionalised (a)	*24.6*	*45.0*	*69.6*	*1.2*	*2.1*	*1.6*

(a) Includes students boarding at school, some patients in hospitals and sanatoria and inmates of reformatories, gaols etc. *(b)* Subject to sampling variability too high for most practical purposes.

The "persons not in the labour force" topic covers the civilian population aged 15 and over who are not in the labour force. Data from this survey are used to measure the potential labour supply not reflected in employment and unemployment statistics and, in particular, to measure the number and characteristics of discouraged job seekers and others with marginal attachment to the labour force. The topic is covered twice-yearly.

Statistics on this topic, and the relevant concepts, definitions and standard errors which apply, are published in the ABS publication *Persons Not in the Labour Force, Australia* (Catalogue No. 6220.0)

Labour Force Experience

This topic is designed to provide information on the labour force experience of the civilian population aged 15 and over during the year ending February 1986 and is the only source of data for labour force experience over a 12 month period. Together with the labour mobility topic these topics are the major source of data for analysing the dynamic nature of the labour force.

The data are collected annually. The information shown in the following table relates to February 1986.

Persons Who Worked At Some Time During The Year Ending February 1986: Number of Weeks Worked and Number of Jobs Held By Age *(a)*, N.S.W., February 1986

('000)

	Age group (years)						
Particulars	*15-19*	*20-24*	*25-34*	*35-44*	*45-54*	*55 and over*	*Total*
Number of weeks worked during the year —							
1 and under 4	20.6	6.2	7.3	8.0	*(b)*	*(b)*	46.5
4 and under 13	40.4	16.7	21.5	15.3	10.4	8.5	112.7
13 and under 26	24.3	23.7	29.0	19.4	12.2	10.3	118.8
26 and under 39	27.5	29.2	40.5	25.2	12.2	17.2	151.7
39 and under 49	24.0	38.9	60.9	50.5	30.6	23.4	228.2
49 and under 52	11.6	22.8	45.4	40.2	17.8	13.6	151.4
52	101.1	235.6	488.5	458.0	316.6	198.1	1,797.9
Number of jobs held during the year —							
One	188.7	282.0	570.5	542.3	369.2	260.8	2,213.4
Two	42.3	63.0	89.3	58.2	26.9	10.0	289.6
Three	10.3	15.1	18.4	9.0	*(b)*	*(b)*	58.2
Four or more	8.2	12.8	14.9	7.0	*(b)*	*(b)*	46.1
Total persons who worked	**249.4**	**373.0**	**693.1**	**616.5**	**402.9**	**272.5**	**2,607.3**

(a) At the time of the survey. *(b)* Subject to sampling variability too high for most practical purposes.

Statistics on this topic, and the relevant concepts, definitions and standard errors which apply, are published in the ABS publication *Labour Force Experience, Australia* (Catalogue No. 6206.0).

Employment Benefits

This topic provides information on a range of employment benefits (in addition to wages or salary) provided to employees by employers. The data are collected annually and, in conjunction with data collected on weekly earnings of employees, enable a more detailed analysis of the level and type of remuneration received by employees.

Information obtained in August 1985 and August 1986 on the employment benefits received by employees is shown in the following table.

Employed Wage and Salary Earners: Type of Benefit Received *(a)*, N.S.W., Month of August ('000)

Benefit	*1985* Males			*1986* Males		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
Total employed wage and salary earners	**1,136.0**	**767.4**	**1,903.4**	**1,160.5**	**798.1**	**1,958.7**
No benefits	63.4	135.1	198.5	79.8	147.0	226.8
One or more benefits	1,072.6	632.3	1,704.9	1,080.7	651.2	1,731.9
Holiday expenses	49.9	18.7	68.7	54.0	16.0	70.0
Low-interest finance	35.8	16.1	52.0	40.3	15.2	55.5
Goods and services	213.2	146.2	359.4	202.9	146.0	348.9
Housing	41.2	9.0	50.2	35.8	11.5	47.3
Household fuel and/or power expenses (b)	21.8	6.4	28.2	19.3	5.8	25.1
Telephone	147.8	29.4	177.3	132.3	27.8	160.0
Transport	127.4	23.3	150.7	126.8	25.3	152.1
Medical	37.2	19.3	56.5	34.2	18.7	52.9
Union dues	40.3	7.3	47.7	35.8	9.8	45.6
Club fees	25.0	5.1	30.1	14.9	4.6	19.5
Entertainment allowance	78.4	12.7	91.2	35.0	5.0	40.1
Shares	22.8	6.1	29.0	25.3	6.9	32.2
Study leave	26.6	10.4	36.9	23.7	14.7	38.4
Superannuation	599.2	202.6	801.8	589.0	216.1	805.1
Children's education expenses	(c)	(c)	4.4	(c)	(c)	(c)
Sick leave	1,019.6	567.5	1,587.1	1,016.8	579.1	1,595.9
Annual leave	1,030.3	570.8	1,601.1	1,028.2	582.4	1,610.6
Long-service leave	842.5	430.3	1,272.8	843.5	446.6	1,290.0

(a) Most benefits were being received by the employee at the time of the survey. However for holiday expenses, low interest finance, goods and services and shares, the benefits had been taken up at some time while the employee was working for their current employer. For sick leave, annual leave and long-service leave, the provision of, rather than the receipt of, the leave was defined as an employment benefit received. *(b)* Includes electricity, gas, oil and firewood. *(c)* Subject to sampling variability too high for most practical purposes.

Statistics on this topic, and the relevant concepts, definitions and standard errors which apply, are published in the ABS publication *Employment Benefits, Australia* (Catalogue No. 6334.0).

Survey of Employment and Earnings

The Australian Bureau of Statistics publishes two independently obtained series of employment estimates. One is based on data from the previously described household-based Labour Force Survey (LFS). The other series is obtained from the Survey of Employment and Earnings (SEE), a survey of employers conducted quarterly but which obtains details of monthly employment.

The SEE is designed to provide information on the monthly employment levels in the economy and on gross quarterly earnings received by employees. An important use of the gross earnings data is in the compilation of the Gross Domestic Product item of the Australian National Accounts.

The SEE and the LFS produce different estimates of the number of employed wage and salary earners. This is because of differences in concepts, coverage, scope, survey design, definitions and survey methodology. The SEE covers only wage and salary earners and its strength lies in its capacity to provide industry estimates which are more reliable than those from the LFS. However, the LFS is very timely and very responsive to changes in the business cycle and provides data on all the major components of the labour force.

A more detailed description of the differences between the Surveys is given in the ABS publication Information Paper: *Comparison of Employment Estimates from the Labour Force Survey and the Survey of Employment and Earnings, Australia* (Catalogue No. 6263.0).

The following tables show statistics derived from the SEE for N.S.W. The statistics relate to all employees who received pay for any part of the relevant survey period. Additional statistics and detailed notes regarding scope, coverage, definitions and standard errors are published in the ABS publication *Employed Wage and Salary Earners, Australia* (Catalogue No. 6248.0).

Employed Civilian Wage and Salary Earners: Industry Division *(a)*, N.S.W. ('000)

Month	Manufacturing	Construction	Wholesale and retail trade	Transport and storage	Finance, etc.	Community services *(b)*	Other industries *(c)*	Total *(d)*
				MALES				
1985: November	274.9	72.1	203.5	90.3	117.0	128.2	233.4	1,121.7
1986: February	273.9	73.9	207.8	89.7	116.4	125.6	233.2	1,122.9
May	270.3	73.9	203.4	87.8	117.3	127.5	231.2	1,113.8
August	266.8	73.8	200.1	89.3	118.2	128.8	232.6	1,111.9
November	273.0	74.6	208.5	85.3	118.0	132.7	234.3	1,128.4
1987: February	272.8	76.8	212.1	85.6	120.2	126.9	236.8	1,133.3
				FEMALES				
1985: November	102.0	13.7	173.5	18.7	131.5	234.2	122.6	796.6
1986: February	102.2	14.5	175.5	18.9	132.2	227.0	124.1	794.9
May	100.9	14.8	177.3	18.9	132.6	223.9	123.3	792.5
August	101.8	13.6	178.9	20.3	135.3	240.8	125.4	816.4
November	105.2	13.6	188.0	19.8	135.4	245.8	125.6	833.8
1987: February	102.3	14.3	181.7	20.8	138.5	235.0	127.1	820.1
				PERSONS				
1985: November	376.9	85.8	377.0	109.0	248.5	362.4	355.9	1,918.3
1986: February	376.1	88.4	383.4	108.7	248.6	352.6	357.2	1,917.8
May	371.2	88.7	380.7	106.8	249.8	351.4	354.5	1,906.3
August	368.6	87.4	378.9	109.5	253.5	369.6	357.8	1,928.3
November	378.2	88.2	396.5	105.0	253.4	378.5	359.7	1,962.3
1987: February	375.1	91.0	393.8	106.4	258.6	361.9	363.9	1,953.5

(a) Classified in accordance with the Australian Standard Industrial Classification (ASIC) described in *Australian Standard Industrial Classification Volume 1 — The Classification* (1201.0). *(b)* Includes Education, Health Services, Law and Order, and Religious and Social Welfare Services. *(c)* Comprises Mining, Electricity, Gas and Water, Communication, Public Administration and Defence, and Recreation, Personal and Other Services. *(d)* Includes employees of government agencies classified to Agriculture, Forestry, Fishing and Hunting.

Employed Civilian Wage and Salary Earners: Sector and Full-Time/Part-Time Status, N.S.W. ('000)

Month	Sector						Total employment		
	Private		Government						
			Commonwealth	State		Local			
	Full-time *(a)*	Total		Full-time *(a)*	Total		Full-time *(a)*	Part-time *(b)*	Total
					MALES				
1985: November	675.5	772.3	88.7	193.6	209.7	51.0	1,006.2	115.6	1,121.7
1986: February	682.7	777.6	89.9	193.1	205.2	50.2	1,012.9	110.0	1,122.9
May	677.0	767.9	89.9	192.6	206.0	50.0	1,006.0	107.8	1,113.8
August	669.6	764.4	90.2	190.8	206.7	50.7	998.1	113.8	1,111.9
November	680.1	779.9	90.0	191.5	208.0	50.4	1,009.0	119.5	1,128.4
1987: February	690.8	790.4	90.9	189.6	201.7	50.3	1,017.0	116.4	1,133.3
					FEMALES				
1985: November	348.3	576.7	44.3	118.1	163.4	12.2	515.8	280.8	796.6
1986: February	351.6	581.4	44.0	118.0	157.5	12.0	518.5	276.4	794.9
May	350.2	581.5	46.0	118.0	152.9	12.1	518.5	273.9	792.5
August	351.4	592.8	46.1	118.9	165.1	12.5	521.5	294.9	816.4
November	357.3	608.2	46.8	118.5	166.4	12.5	527.4	306.5	833.8
1987: February	357.9	601.4	48.4	118.2	157.8	12.5	528.4	291.7	820.1
					PERSONS				
1985: November	1,023.8	1,349.0	133.0	311.7	373.1	63.3	1,521.9	396.4	1,918.3
1986: February	1,034.3	1,359.0	133.9	311.1	362.7	62.2	1,531.4	386.4	1,917.8
May	1,027.2	1,349.4	135.9	310.6	358.9	62.1	1,524.6	381.7	1,906.3
August	1,021.0	1,357.2	136.2	309.7	371.7	63.2	1,519.6	408.7	1,928.3
November	1,037.4	1,388.1	136.8	310.0	374.4	62.9	1,536.4	426.0	1,962.3
1987: February	1,048.7	1,391.9	139.3	307.8	359.5	62.8	1,545.4	408.1	1,953.5

(a) Full-time employees are permanent, temporary and casual employees who normally work the agreed or award hours for a full-time employee in their occupation and received pay for any part of the reference period. If agreed or award hours do not apply, employees are regarded as full-time if they ordinarily work 35 hours or more per week. *(b)* Part-time employees are permanent, temporary and casual employees who are not full-time employees as previously defined.

Job Vacancies

Statistics of job vacancies are compiled from sample surveys conducted in February, May, August and November each year by the Australian Bureau of Statistics. A summary of the results of these surveys for New South Wales is shown in the following table. More detailed results and notes regarding scope and coverage, definitions and standard errors are included in the ABS publication *Job Vacancies, Australia* (Catalogue No. 6231.0).

Job Vacancies: Sector and Industry, N.S.W.

Survey date	*Number of vacancies ('000)*					*Job vacancy rate (a) (per cent)*
	Sector		*Industry*			
	Private	*Government*	*Manufacturing*	*Other*	*Total*	
1985 —						
15 November	9.8	7.7	3.0	*(b)*14.6	17.6	0.9
1986 —						
21 February	14.6	7.3	*(b)*3.6	18.2	21.9	1.1
16 May	13.1	8.0	*(b)*3.3	17.8	21.1	1.1
15 August	10.0	8.6	3.6	15.0	18.6	1.0
21 November	13.1	8.6	3.1	18.6	21.7	1.1
1987 —						
20 February	15.5	9.2	3.7	21.0	24.7	1.3

(a) The job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies. *(b)* Relative standard error greater than 20 per cent but less than 30 per cent.

GOVERNMENT ADMINISTRATION

State legislation dealing with terms of employment and other working conditions of employees is administered by the *New South Wales Department of Industrial Relations and Employment*. The Department deals with administrative aspects of industrial arbitration, conciliation, and ancillary legislation relating to employment within the State jurisdiction, conducts the industrial registry, and polices the observance of State industrial awards and agreements.

It is concerned with apprenticeship training and is responsible for safety and health in industry and for other matters of industrial welfare. It also deals with the registration of trade and industrial unions and of factories and shops. The Department conducts a vocational guidance service and a unit for research and the provision of information on industrial matters.

The role of the Employment Division of the Department is to provide advice on and develop initiatives to maximise the growth of employment, develop and manage Federal and State Government job creation programs and appropriate training and retraining schemes, and carry out detailed labour market analysis.

The *Commonwealth Department of Employment and Industrial Relations* deals with administrative aspects of industrial arbitration and conciliation within the Commonwealth jurisdiction (see the division "Industrial Arbitration" later in this chapter). The Department provides information on the labour market and on industrial matters, provides advice on physical working conditions and safety in industry and on personnel practice, and is also responsible for international labour relations. In addition, the Department is responsible for manpower and industry training policy and programs, economic and international aspects of manpower, employment services, and vocational guidance. It also administers the Commonwealth Employment Service, which comprises approximately 75 per cent of its responsibilities.

Commonwealth Employment Service

The Commonwealth Employment Service is a nation-wide organisation which provides a job placement service and vocational advice to persons seeking employment or a change of employment, and assists employers to obtain suitable personnel to meet their labour requirements. It provides specialised facilities for young people (including school-leavers), disabled persons, migrants, Aboriginals, and persons with professional or technical qualifications. It acts as agent for the Department of Social Security in issuing claims for unemployment benefits, is responsible for the promotion and implementation of employment and training programs, and provides labour market information.

Employment and Training Programs

The Commonwealth Government has introduced a range of general employment and training programs, commencing with the National Employment and Training System (NEAT) in 1974. Since their inception, the programs have been rationalised and, in some instances, the program title has been changed. Details of these previous program structures are set out in previous issues of the Year Book.

The current programs comprise the Adult Training Program (including General Skills Training and National Skills Shortage Training), Training for Aboriginals Program (TAP), JOBSTART, the Community Employment Program (CEP), the Community Youth Support Scheme (CYSS), the Community Training Program (CTP), the Australian Traineeship System (ATS), Community Volunteer Program (CVP), Youth Training Program (YTP), Job Search Training Program (JSTP), Skills Training Program (STP) and Industry Training Services Program (ITSP).

The New South Wales Department of Industrial Relations and Employment also administers a range of general employment and training programs. The current programs comprise the Youth Employment Scheme, Technical Jobs for Women, Management Skills in the Community Sector, and the Local Employment Initiatives Scheme.

APPRENTICESHIP AND INDUSTRIAL TRAINING

Apprenticeship Act 1981

The New South Wales Apprenticeship Council exercises a general oversight of the State apprenticeship system. The Council was established by the Apprenticeship Act 1981. The Council consists of fourteen members (the Director of Apprenticeship, who is chairman, the Director-General of Technical and Further Education, the Conciliation Commissioner for Apprenticeships, one member representing female interests, and five representatives each of employers and employees). Its duties include review of such matters as requirements for (and availability of) skilled tradesmen, availability of persons for apprenticeship and vacancies available for apprentices, the adequacy of training facilities, and measures to promote apprenticeship. It makes recommendations to the Industrial Commission and to Apprenticeship Training Committees on any matter concerning apprenticeship or relating to the training of skilled workers. The Apprenticeship Act also provides for Apprenticeship Training Committees to deal with matters relating specifically to the training of apprentices.

Apprenticeship supervisors are appointed by the Department of Industrial Relations and Employment to supervise the adequacy of training of apprentices in employers' establishments and to advise and assist employers in relation to the employment and training of apprentices and in the formation and conduct of group apprenticeship schemes. Supervisors also investigate complaints regarding conditions of employment of apprentices and alleged breaches of the Apprenticeship Act and regulations or the Industrial Arbitration Act 1940 and, where necessary, may initiate prosecution in appropriate cases with the authority of the Minister.

Wages, hours, and conditions of apprenticeships in particular industries or callings within the State industrial arbitration system are prescribed by Apprenticeship Conciliation Committees (formed under the Industrial Arbitration Act). Committees make awards prescribing conditions of employment for apprentices in the same way as other industrial arbitration authorities do for other employees (see the division "Industrial Arbitration" later in this Chapter). The Committees may also determine the trades or callings for which apprenticeship is to be prescribed, limitations on apprentices employed, terms of apprenticeship, and the extent of compulsory technical education (in co-operation with the Department of Technical and Further Education) and may require the attendance of apprentices at technical schools during working hours. Appeals against decisions of Apprenticeship Conciliation Committees may be made to the Industrial Commission, which also has original jurisdiction with respect to apprenticeship matters in certain circumstances.

Two systems of apprenticeship are covered by awards of Apprenticeship Conciliation Committees — the traditional indenture system, where the contract is intended to continue over a period of years, and the trainee system, which does not require a written contract. Generally, an indentured apprenticeship can be terminated only with the approval of the relevant Apprenticeship Conciliation Committee or by mutual consent of all parties to the indenture, but a trainee apprenticeship may be terminated by either party at any time by giving notice as prescribed in the relevant award (usually one or two weeks). Because of the lack of security inherent in the trainee system, trainee apprentices are paid higher wages than indentured apprentices. Many apprenticeship awards provide only for indentured apprenticeship.

Apprenticeship in Federal Awards

Under the *Conciliation and Arbitration Act 1904*, Federal awards often make provision for apprentices in much the same way as State awards do, although no special Commonwealth authority has been established to deal with apprenticeship matters. In most Federal awards, the State is authorised to supervise the apprenticeship provisions, apart from some exceptions involving awards in the printing, clothing, timber and textile industries.

Apprenticeship Schemes

The N.S.W. Department of Technical and Further Education (TAFE) is responsible for the educational component of trade training and provides over 80 trade courses through its network of 100 colleges. Apprentices may be required to be released by their employer for one day a week (or its equivalent) to attend a TAFE college to undertake this training.

Pre-vocational courses have provided an alternative over the past decade, whereby some trade education is first undertaken full-time at a TAFE college (usually for either six months or one year). On completion, the student seeks apprenticeship (for which level of entry is dependent on the employer) and enters the trade course with advanced standing.

Short-term apprenticeships are available for those who commence their apprenticeship when they are under 21 years of age, have been awarded the Higher School Certificate, and are employed under a Federal award. Under this scheme, apprentices must undertake 18 weeks of full-time training at a technical and further education college before they commence on-the-job training. During the 18 weeks at college, they complete two-thirds of their trade course, the balance being completed by attendance of one day a week at the college during the second year of their apprenticeship. Under this scheme, the time taken to complete an apprenticeship is reduced by between six months and one year depending on the trade. The scheme is particularly aimed at trades such as motor mechanics, fitting and machining, and the electrical trades.

A *Country Apprentices Training Assistance Scheme* assists apprentices who are unable to attend day classes at a technical college because of the location of their homes. Under this scheme, apprentices receive an accommodation and travelling allowance from the State Government while attending full-time training courses conducted (or approved) by the Department of Technical and Further Education.

The Commonwealth Government, through the Department of Employment and Industrial Relations, assists State apprenticeship authorities in promoting apprenticeships through various schemes. The largest of these is the *Commonwealth Rebate for Apprentice Full-time Training (CRAFT) Scheme*. Under the CRAFT Scheme, employers are eligible for tax-exempt rebates for the costs of releasing apprentices to attend (or to study for) basic trade courses in technical education institutions (the Technical Education Rebate) or to attend full-time off-the-job training (i.e. training away from the production area by qualified instructors) in the first year of apprenticeship (the Off-the-Job Training Rebate). Employers who apprentice graduates of Pre-vocational Courses may also be eligible for a special CRAFT rebate. In addition, a living-away-from-home allowance may be paid to first and second year apprentices.

Under the *Group Apprenticeship Support Program*, financial assistance is provided jointly by the Commonwealth and State Governments for costs incurred in the administration of a Group Scheme. Under this arrangement, the Group Scheme indentures the apprentices and seconds them to its members.

Other Commonwealth schemes include the *Group One Year Apprentice Scheme*, the *Special Assistance Program* and the *Special Trade Training Program*. Under the first scheme, surplus training facilities in Commonwealth Government departments and authorities are utilised to train apprentices for the whole of their first year, after which they commence work with the private employer who sponsored them for the Commonwealth training. The total costs (including wages) of the first year's training are met by the Commonwealth. Under the Special Assistance Program, financial assistance is provided to employers who otherwise may have to retrench apprentices or who employ retrenched apprentices, and to retrenched apprentices to enable them to continue training by attending approved courses. The Special Trade Training Program provides special assistance for the training of mature age apprentices in skills which are in demand and for additional Commonwealth funded pre-vocational courses.

Apprenticeship Statistics

Particulars of the apprenticeships approved in each of the last six years are shown in the following table. These figures relate to original approvals only (i.e. initial entries to trade training) and thus exclude second or subsequent approvals (i.e. those relating to apprentices or probationers whose apprenticeship is cancelled with one employer and a second or subsequent apprenticeship is approved with a different employer). There were 2,363 second or subsequent approvals in 1985-86.

Apprenticeships Approved *(a)* by Trade, N.S.W.

Trade	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Building trades —						
Bricklaying, stone masonry, tile setting	568	408	240	264	252	290
Carpentry and joinery	2,035	1,613	892	1,127	1,150	1,313
Drafting	284	214	48	60	88	102
Painting and decorating	310	262	164	273	232	217
Plastering	130	94	67	54	74	88
Plumbing and gasfitting	858	689	411	481	483	578
Other	107	101	58	112	150	310
Food trades — Bread baking	95	82	88	108	85	117
Butchering and smallgoods making	383	370	336	358	333	422
Other	576	655	635	724	789	861
Furniture and associated trades —						
Cabinet and chair making	354	266	177	194	163	177
Upholstery, french polishing	101	88	53	64	83	87
Other	132	136	40	62	70	69
Metal trades —						
Blacksmithing	35	32	20	24	20	10
Boilermaking and structural steel working	1,098	1,084	565	482	360	557
Electrical —						
Fitting and mechanics	2,267	2,316	1,517	1,445	1,402	1,709
Radio and automotive mechanics	313	242	189	200	323	389
Other	55	280	247	363	232	234
Fitting and machining	2,580	2,430	1,222	1,490	1,349	1,455
Mechanics —						
Aircraft	26	25	36	14	13	27
Motor	2,048	1,957	1,279	1,579	1,678	1,934
Other	395	614	260	318	335	437
Moulding and coremaking	58	33	20	10	16	28
Precision instrument making	51	44	24	32	18	23
Sheet metal *(b)*	310	266	149	204	193	242
Welding	195	211	107	136	120	119
Other	111	73	154	245	223	254
Printing trades —						
Letterpress	13	2	—	—	—	—
Other	70	71	88	81	75	104
Vehicle industry trades —						
Painting	251	272	206	195	232	298
Panel beating	426	442	328	382	359	490
Other *(c)*	80	110	64	104	90	96
Bootmaking	24	8	13	16	17	18
Hairdressing	966	1,231	1,088	1,473	1,506	1,704
Ship and boat building	111	133	55	61	47	65
Other trades	537	581	582	495	518	659
All trades —						
Indentured apprenticeships	15,581	15,457	9,818	11,632	11,590	13,577
Trainee apprenticeships	2,372	1,978	1,604	1,598	1,488	1,906
Total apprenticeships	**17,953**	**17,435**	**11,422**	**13,230**	**13,078**	**15,483**

(a) Original apprenticeships approved. Excludes (approved) second or subsequent apprenticeships, as well as apprenticeships with employers who operate under those Federal awards for which the State is not authorised to supervise the apprenticeship provisions (see previous text). *(b)* Includes the metal polishing and spinning trades. *(c)* Excludes electrical, plant and motor mechanics.

OCCUPATIONAL HEALTH AND SAFETY

The Commonwealth Government has established the *National Occupational Health and Safety Commission* as a statutory authority to develop, facilitate and implement its occupational health and safety strategy. It has adopted as its working title, Worksafe Australia.

The Commission, through its National Institute of Occupational Health and Safety, provides teaching and research programs in occupational health and industrial hygiene in conjunction with the University of Sydney, and in safety science in conjunction with the University of New South Wales.

The *Joint Coal Board* is responsible for occupational health in the coal mining industry.

The *Division of Occupational Health in the New South Wales Department of Industrial Relations and Employment* undertakes the investigation of occupational diseases, the supervision of health conditions in industry and the dissemination of advice about measures which safeguard the health of workers. An Advisory Committee on Personal Protective Equipment, consisting of representatives from the New South Wales Department of Health and the Department of Industrial Relations and Employment, is responsible for approving new types of personal protective equipment and of methods of testing this equipment. The Department of Industrial Relations and Employment also operates the Londonderry Occupational Safety Centre which is primarily involved in the testing of equipment and materials for use in the mining industry, as well as the conduct of research. In addition, the Department has a Safety Education and Training Services Branch, whose aims include: increasing public awareness of occupational health, safety and rehabilitation matters; the provision of information on occupational health services and facilities provided by Government; and the provision of a training service for workplaces and schools to increase their awareness of health and safety risks and of their prevention.

Factories and shops in New South Wales must be registered annually with the Department of Industrial Relations and Employment, and various conditions are imposed on the employment of women and juveniles in factories. The Department provides an advisory service on such matters as dangerous machinery, lighting, ventilation, fire-fighting equipment, first aid, etc., and deals with safety measures for cranes and hoists, lifts, building work, diving, and compressed air works. Inspectors of the Department police the observance of laws relating to these matters, and are responsible for examining and issuing certificates of competency to crane-drivers, dogmen, scaffolders and lift attendants. Employers are required to notify the Department of an accident or any other matter which affects the health or safety of any person in the workplace.

The (State) Occupational Health and Safety Act 1983 provides for the safety, health and welfare of all persons at work, as well as protecting persons who are not employees against risks to health and safety arising out of the activities at a place of work. The Act sets out safe working obligations imposed on employers and employees and provides for enforcement by the Division of Inspection Services in the Department of Industrial Relations and Employment. It embraces seven other Acts as associated pieces of legislation. These Acts are: Factories, Shops and Industries Act 1962; Construction Safety Act 1912; Dangerous Goods Act 1975; Coal Mines Regulation Act 1982; Mines Inspection Act 1901; Mines Rescue Act 1925; and the Rural Workers Accommodation Act 1969.

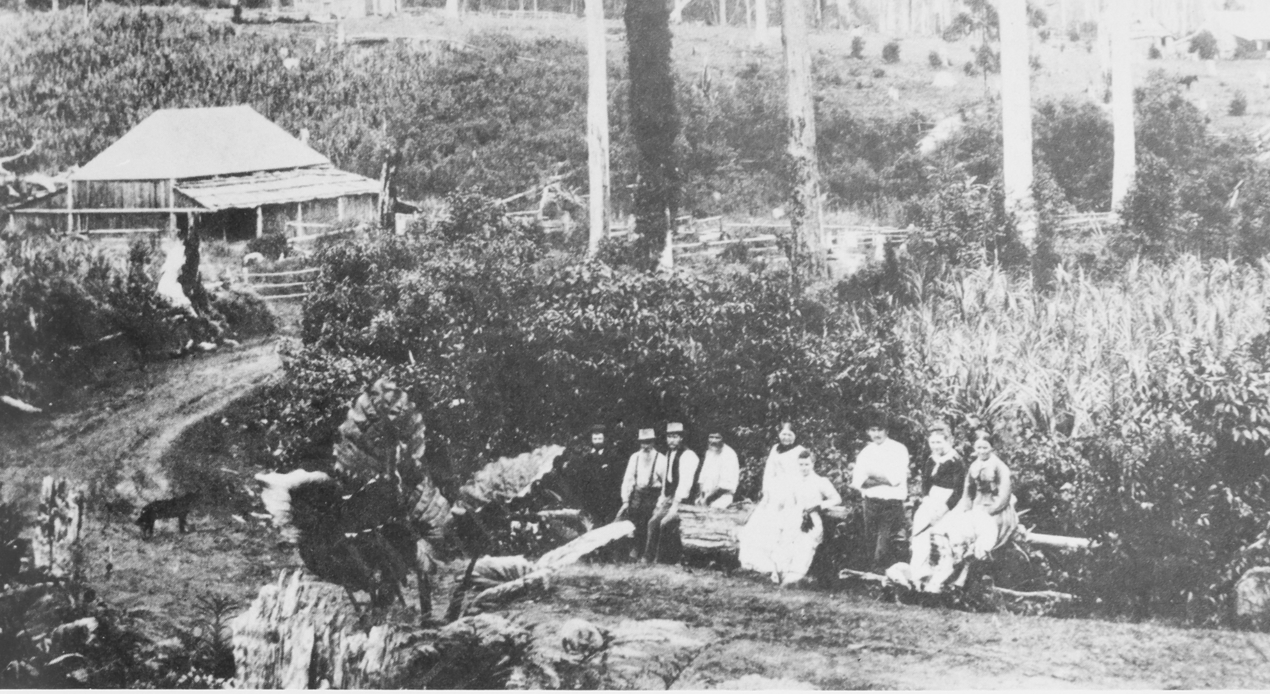
The Act provided for the establishment of the Occupational Health, Safety and Rehabilitation Council of New South Wales, whose functions include carrying out investigations and making reports and recommendations with respect to any matter relating to occupational health and safety legislation.

The Occupational Health and Safety Act also provides for the establishment of safety and health committees at the workplace. Committees are required to be formed where twenty or more persons are employed and the majority of the employees request it, or where the Council specifically directs a committee to be formed.

The role played by the States is being supported and strengthened by the co-ordinating and facilitating activities of the Commonwealth, through Worksafe Australia.

WORKERS' COMPENSATION

Employers in New South Wales must compensate employees for injuries sustained and diseases contracted or aggravated in the course of their employment. They must also insure with a licensed insurer against their liability to pay compensation unless licensed by the State Compensation Board to undertake this liability for their own employees. This obligation is imposed by the Workers Compensation Act 1987 and other legislation, the most important being the Workers' Compensation (Dust Diseases) Act 1942 and the Workmen's Compensation (Broken Hill) Acts. The Police Regulation (Superannuation) Act 1906 provides for compensation to members of the police force killed or disabled by injury in the execution of their duty or any circumstances in which a workers' compensation act otherwise applies. Commonwealth legislation provides for compensation to employees of the Commonwealth Government and to employees in particular classes of work (such as seamen) subject to special risks.

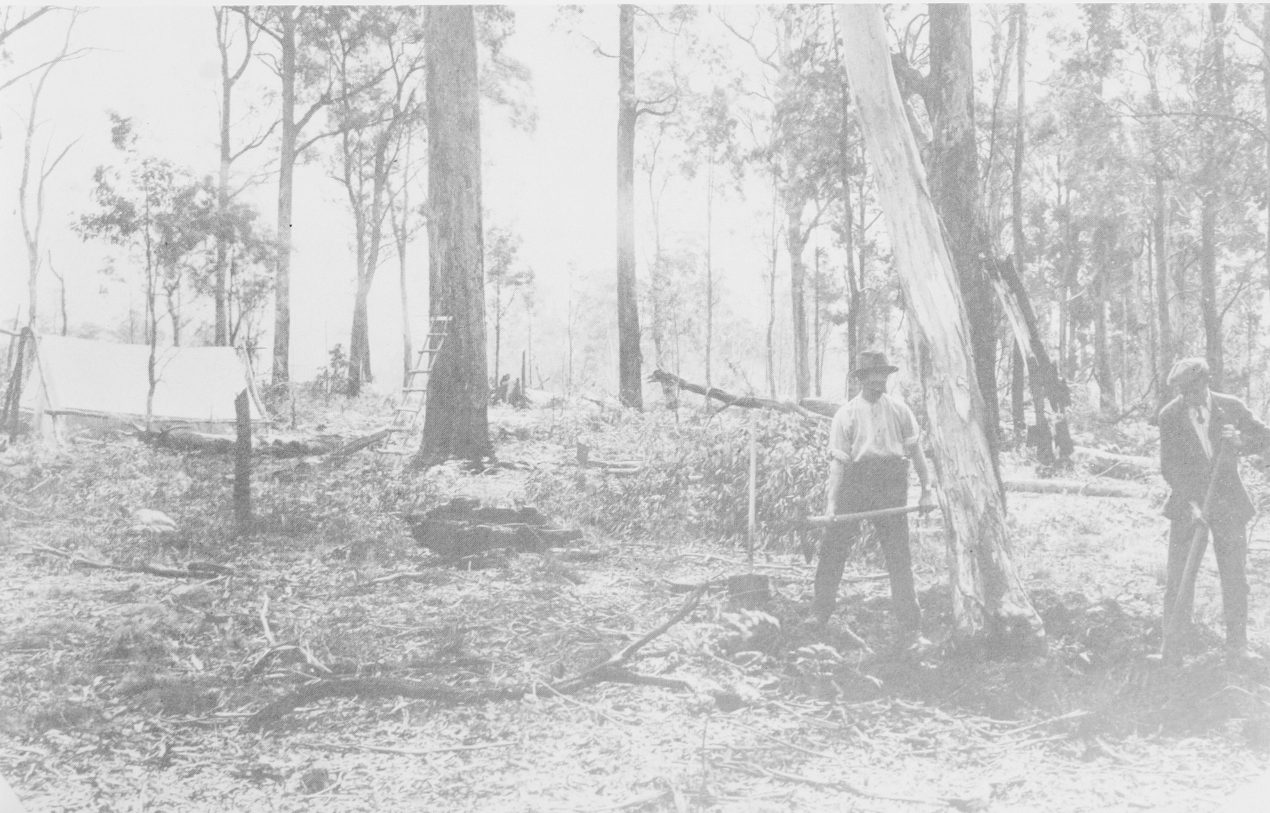


Clarence River Historical Society/Mitchell Library, State Library of New South Wales

Above: A group of selectors and their homes, c.1880. The "free selections" system introduced in N.S.W. in 1861 enabled settlers to take up rural land for agriculture which had previously been monopolised by large-scale pastoral squatters. Purchase of their blocks carried an obligation to improve the land, often in isolated areas, which for most entailed struggle and hardship.

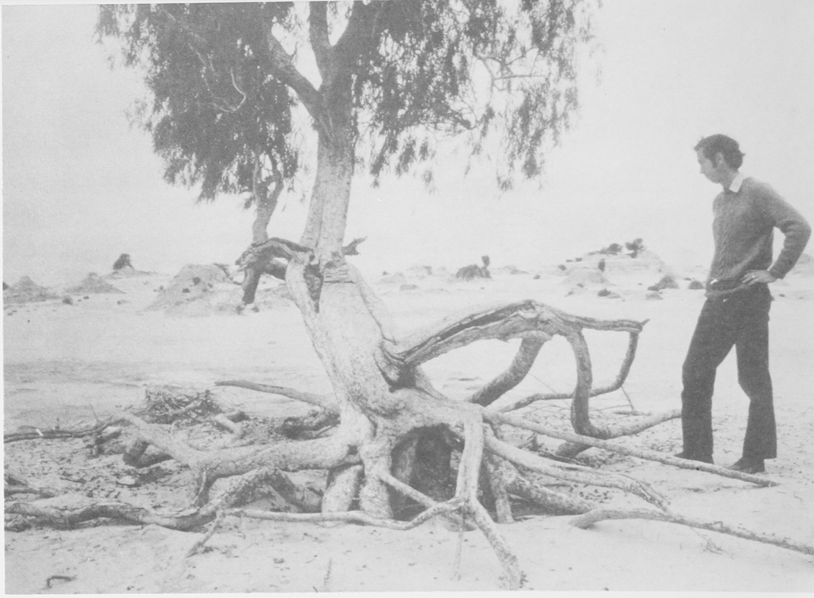
Hardship and isolation were also the lot of later pioneer settlers. The picture (below) shows a returned soldier clearing land on a Returned Soldier Settlement farm at Batlow, a settlement made available to veterans of World War I. Crown land was subdivided and the settlers were under an obligation to use and develop their holding. Many failures occurred and properties were abandoned because of inadequate finance, unsuitability of the land and from lack of experience or training of the settler.

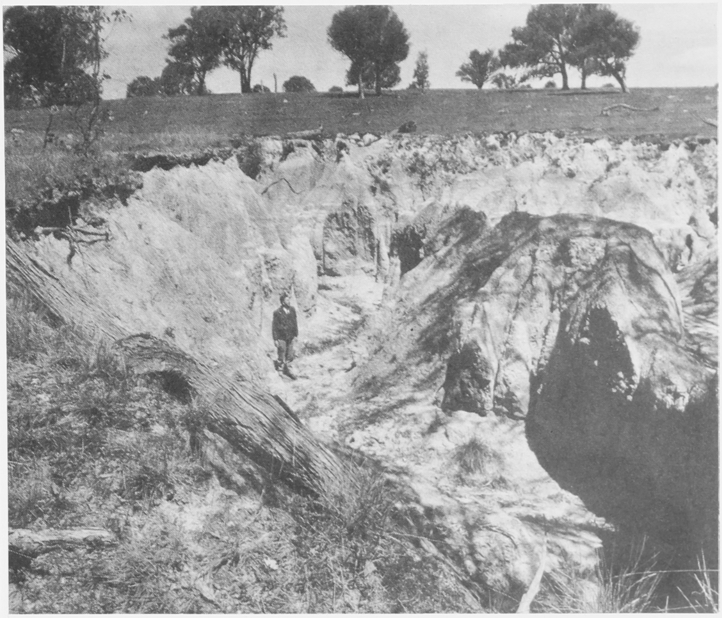
Archives Office of N.S.W.



A survey in 1967 showed that roughly two-fifths (or 19.5 million hectares) of the Eastern and Central Divisions of the State were affected by erosion — about 10.5 million hectares were affected by sheet and wind erosion and about 9 million hectares were affected by gully-type erosion. Soil erosion by wind is a natural phenomenon in the Willandra Lakes Region in western New South Wales (right). It is a dry sandy area where periodic drought conditions cause the decline of protective vegetation. Feral introduced animal species also contribute to erosion by burrowing and damaging the vegetation. Dust storms are common once the topsoil is exposed to the wind, and have the capacity to remove great quantities of soil.

Soil Conservation Service of New South Wales



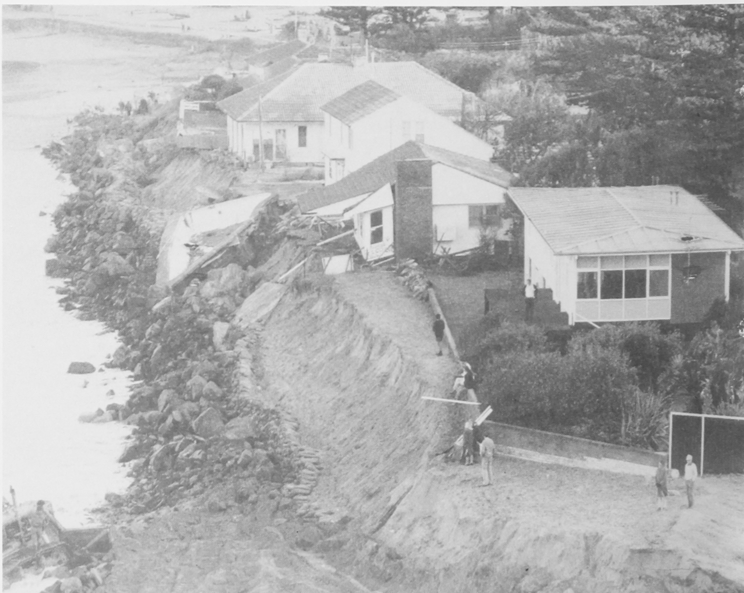


Accelerated soil erosion, such as this severe gully erosion, is the most important environmental problem affecting the northern slopes and plains of New South Wales. It is usually caused by serious land abuse such as the clearing of land for agriculture, overgrazing, or vegetation and soil disturbance by mining and construction, and is often accelerated by drought conditions. Summer storms drench small sections of the land with heavy rain in short periods of time and cause massive degradation to the fertility, salinity and structure of the exposed soil.

Soil Conservation Service of New South Wales

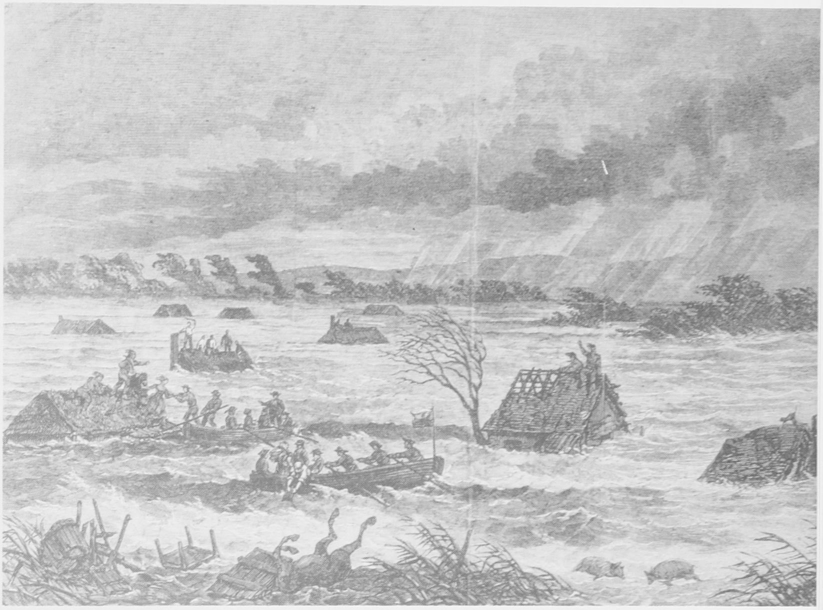
In the first half of 1974, the New South Wales coastal areas suffered extensive storm damage. The photograph shows Bilgola Beach, one of Sydney's northern beaches, which was damaged by erosion caused by rough seas and high tides. Many areas of coastal land in the State are threatened by such south-easterly storms, especially where urban development has encroached onto the traditional frontal sand dunes.

The Sydney Morning Herald



A farmer examines dried mud on the bed of an empty dam during the 1968 drought which struck a wide area of south-eastern Australia. Droughts are a frequent feature of the Australian climate, and they are responsible for great losses of stock through water and feed shortages, and contribute significantly to the incidence of bushfires and dust storms.

Promotion Australia

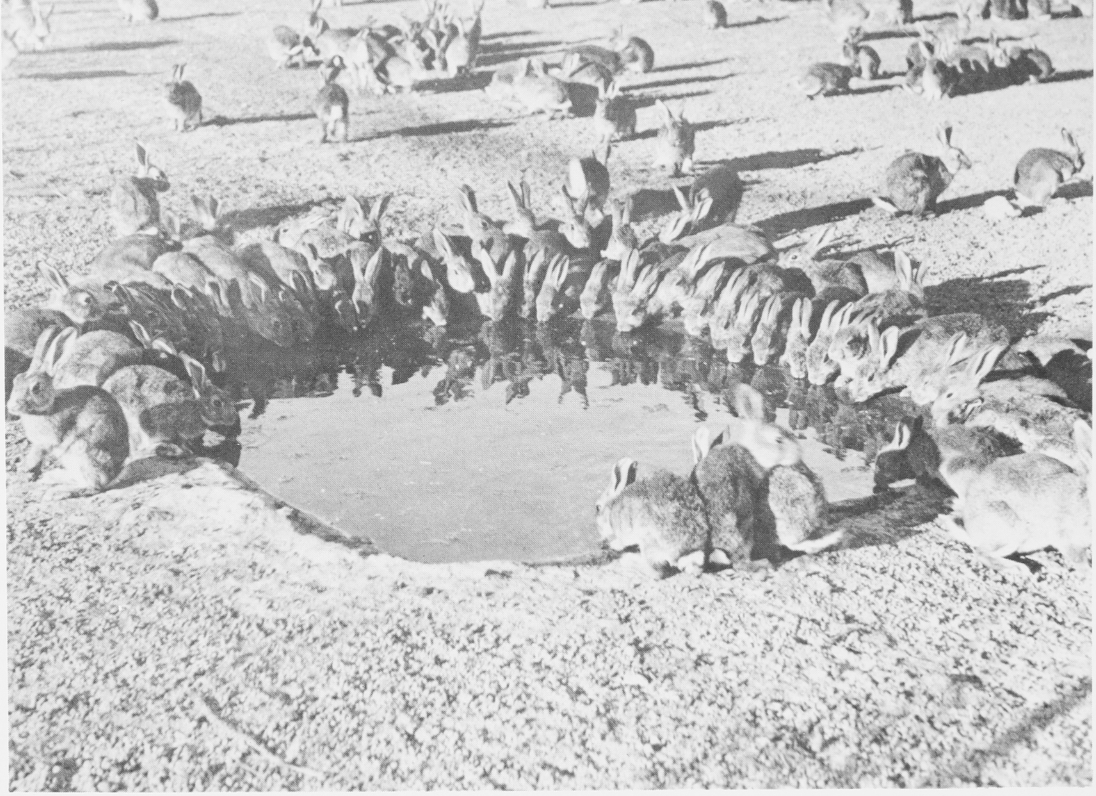


An illustration from a newspaper last century, date unknown, showing Penrith during a Hawkesbury River flood. Floods such as this have occurred every few years along the N.S.W. coast since the foundation of the Colony. The chaos caused by these floods was vividly described by W.C. Wentworth in 1819, in his book "A .... Description of the Colony of New South Wales ...". "The chaos of confusion and distress that presents itself on these occasions, cannot be easily conceived by any one who has not been a witness of its horrors. An immense expanse of water, of which the eye cannot in many directions discover the limits, every where interspersed with growing timber, and crowded with poultry, pigs, horses, cattle, stacks and houses, having frequently men, women, and children, clinging to them for protection, and shrieking out in an agony of despair for assistance: such are the principal objects by which these scenes of death and devastation are characterized".

Mitchell Library, State Library of New South Wales

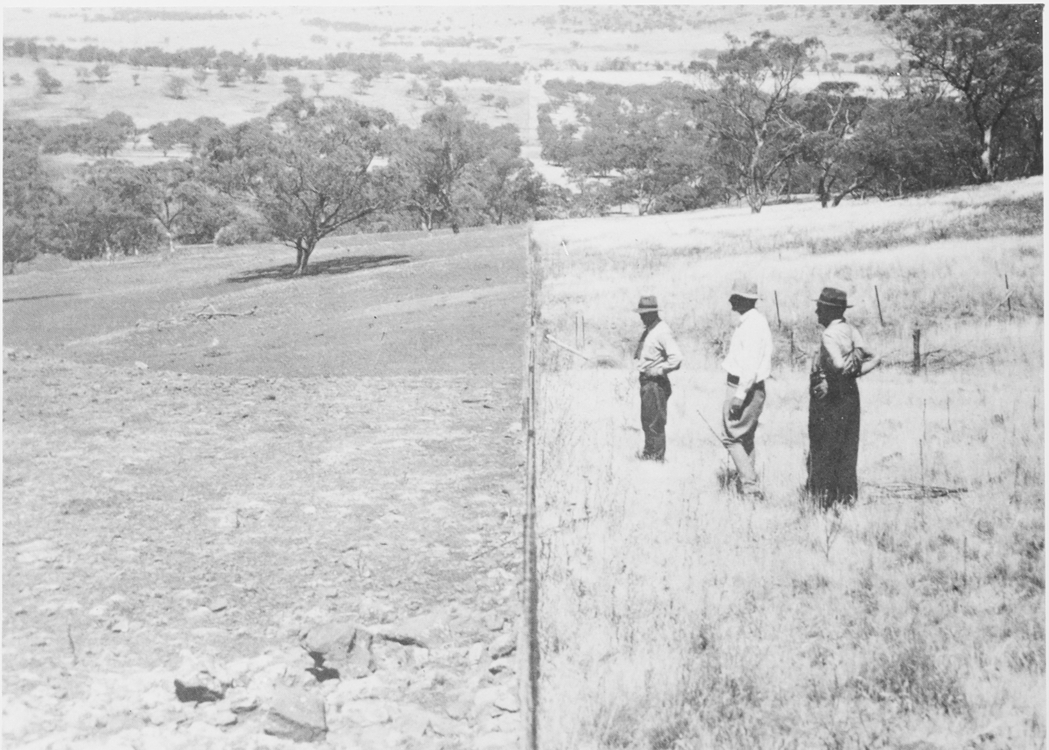
In May 1974, during a violent storm, the 53,000 tonne Norwegian bulk carrier *Sygna* was driven aground on Stockton Bight Beach, near Newcastle, and broken in two by rough seas. This is a notorious stretch of beach which, throughout the history of the colony, has been a graveyard to shipping during south-easterly storms. In July 1866, for instance, 5 ships were sunk along this stretch of beach with a total loss of 74 lives, and in May 1869, 4 ships were sunk with a loss of 22 lives.

Newcastle Morning Herald



Rabbits drinking at a waterhole during a drought (above), before the introduction of myxomatosis. The rabbit population originated from a small shipment of wild-type rabbits imported from England in 1859, and liberated near Geelong, Victoria. They rapidly spread, and first became a problem in New South Wales about 1881 as they reduced the ability of agricultural land to carry stock. Thousands of kilometres of rabbit-proof fences were constructed (below), to try to curb the spread of rabbits. Although they were effective temporarily, the barrier fences failed in their objective because they were often erected too late, and they could not be properly maintained. The problem was almost solved after 1951 when the virus disease in rabbits, myxomatosis, was released by the CSIRO and spread rapidly over the State. Since then, however, rabbits have developed some resistance to the disease, and control now largely depends on their destruction by other means such as poisoning by sodium fluoroacetate (1080), ripping and fumigation of warrens, and trapping.

Promotion Australia



The State Compensation Board is required to carry out research, collect statistics, monitor the operation of the system of compensation, make reports and recommendations to the Minister, and provide advisory services to the public. It must also provide funds in relation to accident and disease prevention and safety education, administer vocational re-education or rehabilitation schemes, provide information in other languages, and arrange interpreter services and a law reporting service, as well as providing and administering a legal aid service. Judicial functions are performed by the Compensation Court of New South Wales — see Chapter 9 for further details.

The administrative expenses of the Board and the Court are met by levies on both self-insurers and insurers who undertake the employers' liability to pay compensation.

Two separate authorities administer the acts relating to dust diseases contracted other than in coal mines (which are covered by the Workers Compensation Act); these are the Joint Committee established under the scheme covering workers in the Broken Hill mines, and the Workers' Compensation (Dust Diseases) Board which administers the scheme covering all other workers except those in the coal mines. Appeals on questions of fact and of law from decisions of the Joint Committee and of the Workers' Compensation (Dust Diseases) Board may be made to the Compensation Court.

Workers Compensation Act 1987

Following a major review of workers' compensation, the N.S.W. government introduced a new system of protection for workers and employers in New South Wales with the Workers Compensation Act 1987. The Act was proclaimed on 17 June 1987. The new scheme places a greater emphasis on workplace safety.

Under the Act, workers are entitled to compensation for injuries which arise out of or in the course of their employment and for diseases which are contracted or aggravated in the course of employment where the nature of their employment was a contributing factor. Compensation is also payable to workers injured on daily or periodic journeys between their home and place of employment. Workers engaged by employers in New South Wales, but working outside New South Wales, are entitled to compensation. Diseases caused or aggravated by dust are compensable under the Act only in the case of persons employed in or about coal mines.

Workers' Compensation Insurance

Employers must insure with a licensed insurer against their liability to pay compensation, unless licensed by the State Compensation Board to undertake the liability on their own account. Payments under the Uninsured Liability and Indemnity Scheme administered by the Board may be made in respect of workers whose employers have failed to insure; in such cases, the employer must reimburse the Scheme.

By an order made under the Coal Industry Act 1946, the Joint Coal Board requires employers in the coal mining industry to effect with the Board all workers' compensation insurance in respect of their mine-working employees.

Workers' Compensation Statistics

The statistics given below have been derived from the returns which insurers and self-insurers were required to supply to the State Compensation Board in respect of claims made under the old Workers' Compensation Act. These statistics do not provide a complete record of all employment injuries to workers in New South Wales because some injuries are not compensable in terms of the act, some employees receive full wages in cases of illness and accident and compensation is claimed only when death or serious disability results, and some groups of employees are outside the scope of the Act.

The following table shows for recent years *(a)* the number of new cases of compensable injury reported during the year and *(b)* the amount of compensation paid in the year irrespective of when the injury was first reported. Because of this difference in bases, the number of cases shown in the table cannot be related to the amount of compensation paid.

Workers' Compensation Act: Cases and Compensation Paid, N.S.W.

Particulars	*Year ended 30 June* *1981*	*1982*	*1983*	*1984*	*1985*	*1986*
	Number of new compensation cases					
Death or incapacity for 3 days or more —						
Death	319	306	299	250	218	247
Incapacity	143,861	144,814	118,515	111,356	115,420	114,196
Total	*144,180*	*145,120*	*118,814*	*111,606*	*115,638*	*114,443*
Incapacity for less than 3 days	57,421	54,510	50,307	45,772	45,958	41,358
Minor injury (medical treatment only)	73,847	79,447	75,693	65,936	61,423	58,475
	Compensation paid *(a)* ($'000)					
Death or incapacity for 3 days or more	338,973	414,319	508,459	568,337	653,118	695,491
Other	9,788	11,490	12,558	12,520	13,012	13,339
Total compensation paid	**348,761**	**425,809**	**521,017**	**580,857**	**666,130**	**708,830**

(a) Amount paid for all cases irrespective of when the injury was first reported. Includes medical, hospital, and ambulance expenses, and damage to clothing and artificial aids, but excludes legal costs, etc.

Of the 247 new fatal compensation cases reported in 1985-86, 58 related to injury by disease and 189 to injury by accident. Of all the new cases reported in 1985-86 involving incapacity for three days or more, 15,959 were in respect of injury by disease and 98,237 were for injury by accident.

More detailed statistics relating to workers' compensation in New South Wales are contained in the annual bulletin Workers Compensation Statistics, New South Wales issued by the State Compensation Board. In addition, the ABS releases (annually) statistics on employment injuries in New South Wales compiled from the same sources, and which are based on Australian standard classifications of industry and occupation, in terms of incidence, prevalence, and severity. These data are published in the ABS publication *Employment Injuries, New South Wales* (Catalogue No. 6311.1).

Workmen's Compensation (Broken Hill) Acts

Compensation for Broken Hill miners disabled by certain industrial diseases which cause gradual disablement is provided in terms of the Workmen's Compensation (Broken Hill) Act 1920 and the Workmen's Compensation (Lead Poisoning-Broken Hill) Act 1922. In some cases of pneumoconiosis and/or tuberculosis contracted in the Broken Hill mines by workers, compensation is paid by the mine owners. In other cases, compensation is paid by equal contributions from the mine owners and the State Government. In respect of compensation paid by mine owners, there were 38 cases at 30 June 1986 involving 6 workers and 32 dependants and the payments made during 1985-86 amounted to $93,000. In respect of compensation paid equally by mine owners and the government, there were 13 cases at 30 June 1986 involving 13 widows (only) and payments in 1985-86 totalled $120,000.

Workers' Compensation (Dust Diseases) Act

A comprehensive scheme of compensation for death or disablement through exposure to silica dust and other specified dusts is provided, in terms of the Workers' Compensation (Dust Diseases) Act 1942, for workers other than Broken Hill miners and coal miners.

Particulars of the operations of the Workers' Compensation (Dust Diseases) Fund in recent years are given in the following table.

Workers' Compensation (Dust Diseases) Fund, N.S.W.: Compensation Statistics

Year ended 30 June	*Income: employers' contributions ($'000)*	*Compensation payments* *To disabled workers and dependants ($'000)*	*To dependants of deceased workers ($'000)*	*Medical, hospital, etc. ($'000)*	*Total ($'000)*	*Number of compensation awards made*	*Number of compensation applications by workers*
1981	4,320	2,145	1,580	77	3,802	48	1,174
1982	4,920	2,221	2,051	105	4,377	44	1,007
1983	5,525	2,527	2,205	121	4,854	79	770
1984	5,725	2,596	2,535	138	5,269	60	1,051
1985	6,250	2,782	2,856	162	5,800	62	1,183
1986	6,395	2,747	2,885	100	5,733	48	771

As at 30 June 1986, 875 workers classified as suffering from a dust disease and 854 dependants of deceased workers were receiving compensation.

TRADE UNIONS

A trade union which has at least seven members and which complies with prescribed conditions as to rules, etc. may be registered as a union of employees or of employers (as the case may be) under the (State) Trade Union Act 1881. Registration of unions under the Act is the responsibility of the State Industrial Registrar.

The (State) Industrial Arbitration Act 1940 provides that the rules of a trade union must not conflict with an industrial award and that a trade union's funds must not be applied to the furtherance of the political objects of any organisation (unless the union is entitled to be affiliated with the organisation). Under the Act, the Industrial Commission is empowered to deal with matters concerning breaches of union rules and breaches of certain agreements between union members, between unions, and between a trade union and an employer. The Act also contains provisions which enable the correction of irregularities in the election of union officials. A registered trade union must admit as members all persons who are, by the nature of their occupation or employment, of the class for which the union was constituted and who are not persons of general bad character.

Under the Industrial Arbitration Act, an association of employees registered under the Trade Union Act, or an association of employers who have, in the aggregate, at least 50 employees (or a single employer with at least 50 employees), may be registered as an industrial union. Prior registration as a trade union is not a prerequisite for an association of employers seeking registration as an industrial union. Applications by employees for an award of a State industrial tribunal may be made only through a registered industrial union. Prior registration as an industrial union is not necessary in the case of an employer association, provided that the employer or employers making the application have at least 20 employees in the industry or calling.

Under the (Commonwealth) *Conciliation and Arbitration Act 1904,* an association of employers who have, in the aggregate, at least 100 employees (or a single employer with at least 100 employees), or an association of (in general) at least 100 employees, may be registered as an industrial organisation. Registered organisations include both interstate associations and associations operating within one State only.

Further particulars of industrial unions registered under the Industrial Arbitration Act and of industrial organisations registered under the Conciliation and Arbitration Act are given in the division "Industrial Arbitration" later in this chapter.

Associations of trade unions of employees have been established in the main industrial centres of the State. These associations are usually known as Trades Hall or Labor Councils, and comprise representatives from affiliated unions.

The Australian Council of Trade Unions (ACTU) comprises officers elected by and from the annual Australian Congress of Trade Unions and a representative appointed by the central Labor Council of each State. The ACTU has authority to deal with interstate industrial matters between Congresses, on behalf of the unions which are members of the Congress.

Statistics of Employee Unions

Statistics of those trade unions of employees which are registered under the (State) Trade Union Act are compiled by the State Industrial Registrar. These statistics do not fully represent the position of trade unionism in New South Wales because some employee unions in the State are registered only under Commonwealth legislation.

Statistics of trade unions of employees in Australia are compiled from data collected by the ABS direct from the unions and cover all employee unions, whether registered as industrial organisations or not and, if registered, whether registered under Commonwealth legislation or registered only under State legislation. The statistics show that in June 1986 there were 182 trade unions with 1,148,200 members in New South Wales. At 30 June 1986, approximately 58 per cent of the wage and salary earners in New South Wales (66 per cent of males and 48 per cent of females) were members of trade unions.

INDUSTRIAL DISPUTES

Statistics of industrial disputes relate to disputes which involve a stoppage of work in which the total time lost at the establishment where the stoppage occurred is ten working days or more. Ten working days is equivalent to the amount of ordinary time worked by ten people in one day. They include the time lost by employees who worked at those establishments but were not themselves parties to the disputes but they exclude the time lost, as a result of the disputes, by employees in other establishments.

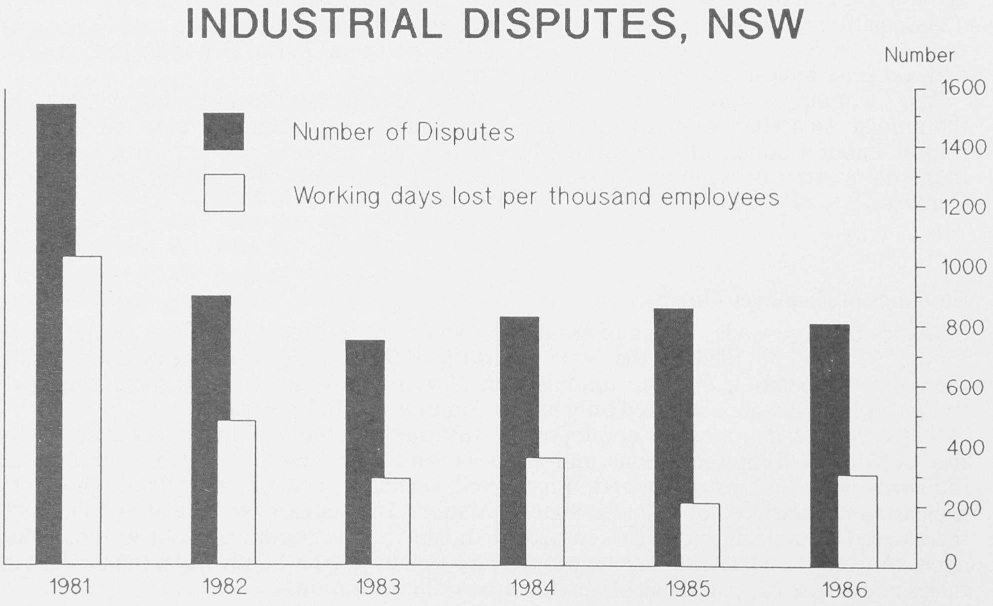
In the following tables, statistics on the number of disputes for a particular year refer to disputes which started or were in progress during the year, irrespective of whether they had commenced in the year or had continued into the next year, whereas the statistics on the number of workers involved and of working days lost only relate to the current year. *Workers involved* in more than one dispute during a year are counted once for each dispute.

Working days lost refer to working days lost by workers directly and indirectly involved in the dispute and figures are generally as reported by the parties to the dispute. For some disputes, working days lost are estimated on the basis of the estimated number of workers involved and the duration of the dispute.

In analysing these statistics, and particularly in comparing them with similar statistics for other countries, careful consideration should be given to the basis of the statistics and the definitions of the terms used. Practices vary greatly between countries.

The number of working days lost per thousand employees for 1986 for New South Wales and Australia totalled 304 and 242 respectively. For 1985, the corresponding totals were 209 and 228.

Trends during the last six years in the incidence of industrial disputes in New South Wales are illustrated in the following graph and tables. In these tables, the industrial disputes are classified by industry according to the Australian Standard Industrial Classification (ASIC) which is described in Appendix B of the 1985 issue of the N.S.W. Year Book. The statistics from 1984 onwards were compiled according to the descriptions contained in the 1983 edition of the classification. However, for the period 1981 to 1983, the statistics were compiled according to the 1978 edition of that classification.



Industrial Disputes *(a)*: Principal Industries *(b)*, N.S.W.

		Manufacturing			*Transport and storage; Communication*			
Year	*Mining*	*Metal products, machinery, etc.*	*Other*	*Con-struction*	*Steve-doring services*	*Other*	*Other industries*	*Total, all industries*
				Number of disputes				
1981	299	736	120	116	35	94	137	1,537
1982	193	425	41	85	24	41	88	897
1983	189	315	28	92	30	31	61	746
1984	235	365	42	64	24	r31	67	r828
1985	230	309	37	102	21	61	98	858
1986	189	308	57	74	23	51	106	808
				Workers involved (directly and indirectly) ('000)				
1981	r75.9	174.2	71.4	56.0	10.6	48.7	112.3	r549.0
1982	r72.2	90.7	16.0	21.4	5.8	14.7	81.1	r302.1
1983	r50.9	49.5	15.2	30.2	11.1	25.4	46.6	r229.0
1984	r53.9	62.9	13.4	22.2	5.6	r17.2	133.4	r308.6
1985	44.3	43.6	16.6	28.4	10.8	23.6	59.0	226.3
1986	77.4	79.4	48.3	27.3	6.5	12.1	87.9	338.8
				Working days lost ('000)				
1981	r249.8	609.5	262.7	198.2	24.8	139.0	431.9	r1,915.7
1982	r275.0	142.3	51.2	53.4	6.5	41.8	213.8	r784.0
1983	105.6	106.1	25.6	81.0	11.7	134.1	337.2	801.2
1984	181.5	84.1	46.8	44.8	7.1	r76.2	220.3	r660.6
1985	100.3	58.4	52.2	46.2	13.8	57.7	70.0	398.7
1986	306.7	101.4	64.8	33.6	14.1	14.6	63.5	598.8

(a) See text preceding table. *(b)* Industrial disputes are classified by industry according to ASIC, see text preceding table.

Working Days Lost in Industrial Disputes *(a)*: by Industry *(b)*, N.S.W. ('000)

Industry	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Agriculture, forestry, fishing and hunting	0.2	70.5	278.5	0.5	—	—
Mining —						
Coal mining	r197.1	r274.4	104.8	99.5	100.3	256.4
Other mining	52.7	0.6	0.8	81.9	—	50.3
Total mining	*r249.8*	*r275.0*	*105.6*	*181.5*	*100.3*	*306.7*
Manufacturing —						
Food, beverages and tobacco	59.4	22.0	0.9	28.5	37.0	23.4
Textiles; Clothing and footwear	16.0	1.7	12.3	1.2	0.9	9.8
Wood, wood products and furniture	4.5	—	—	0.3	—	0.4
Paper, paper products, printing and publishing	127.4	6.3	4.3	1.8	4.1	16.7
Chemical, petroleum and coal products	24.2	12.1	6.9	10.1	8.9	2.7
Metal products, machinery, etc.	609.5	142.3	106.1	84.1	58.4	101.4
Other manufacturing	31.2	9.0	1.2	4.9	1.2	11.8
Total manufacturing	*872.2*	*193.5*	*131.7*	*130.9*	*110.7*	*166.2*
Electricity, gas and water	52.2	42.1	12.1	19.4	13.9	24.0
Construction	198.2	53.4	81.0	44.8	46.2	33.6
Wholesale and retail trade	62.5	24.4	9.0	20.6	4.5	8.3
Transport *(c)* and storage; Communication —						
Railway and air transport	77.1	20.4	129.1	69.5	22.0	6.1
Water transport	14.8	5.0	2.0	0.8	0.2	—
Stevedoring services	24.8	6.5	11.7	7.1	13.8	14.1
Road transport, other transport, other services to transport and storage; Communication	47.1	16.4	3.0	r5.9	35.4	8.5
Total transport and storage; Communication	*163.8*	*48.3*	*145.8*	*r83.3*	*71.5*	*28.7*
Recreation, personal and other services	85.0	0.6	2.3	7.5	4.9	0.5
Other industries *(d)*	232.0	76.2	35.2	172.3	46.7	30.7
Total working days lost	**r1,915.7**	**r784.0**	**801.2**	**r660.6**	**398.7**	**598.8**

(a) See text preceding tables. *(b)* Industrial disputes are classified by industry according to ASIC, see text preceding tables. *(c)* From 1984, a revised ASIC Classification was used which treated Services to Transport as a separate category. Previously, data relating to Services to Transport (except Stevedoring Services) had been included under the relevant transport category. *(d)* Comprises Finance, Property and Business Services, Public Administration and Defence, and Community Services.

INDUSTRIAL ARBITRATION

In New South Wales, there are two systems of industrial arbitration for the adjustment of relations between employers and employees: the State system, which operates under the laws of New South Wales within its territorial limits; and the Commonwealth system, which applies to industrial disputes extending beyond New South Wales territorial limits. The main principle in both systems is compulsory conciliation or arbitration, as a means of preventing or settling industrial disputes, by authorities which have the status of legal tribunals and which make "awards" having the force of law.

The relationship between the State and Commonwealth systems of industrial arbitration rests upon the distribution of legislative powers between the Commonwealth and the component States. The powers of the Commonwealth in regard to industrial arbitration are as defined in the *Commonwealth of Australia Constitution Act 1900*; all residual powers remain with the States. This Act provides that if a State law is inconsistent with a valid Commonwealth law, the latter prevails and the State law becomes invalid to the extent of the inconsistency. Awards of the Commonwealth industrial tribunals have been held to be Commonwealth laws and therefore override those made by State authorities.

The principal source of the Commonwealth constitutional power in relation to industrial matters is its power to make laws with respect to "conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State". In interpreting the law, the High Court of Australia has decided that the Commonwealth Parliament cannot empower an industrial tribunal to declare an award a "common rule" or industry-wide award to be observed by all persons engaged in the industry concerned. The Commonwealth industrial tribunals must proceed by way of conciliation and arbitration between actual parties, and (except within a Commonwealth Territory) cannot bind by award any employer who is not a party to an interstate dispute. Additionally, disputes which do not extend beyond the limits of any one State can be dealt with by the Australian Conciliation and Arbitration Commission as part settlements of interstate disputes.

However, the Commonwealth Government has used other constitutional powers to authorise Commonwealth tribunals to deal with employer/employee relationships in particular industries other than by means of conciliation and arbitration. In particular, the interstate trade and commerce power and the defence power have been used to confer wide powers on the Australian Conciliation and Arbitration Commission with respect to the maritime industries, waterside workers and various Commonwealth projects. By agreement between the Commonwealth and New South Wales Governments, a joint Commonwealth and State tribunal has been established to deal both with interstate industrial disputes in the coal mining industry and with disputes confined to the industry in New South Wales.

Notwithstanding these limitations of the Commonwealth jurisdiction in industrial matters, the Commonwealth system has gradually become predominant in the sphere of industrial arbitration throughout Australia. Its influence extended in the first place with the gradual adoption of the principle of federation in trade unionism and in political organisation, a tendency which gathered force during the 1914-18 war period. As industry expanded over interstate borders, uniformity of industrial conditions was sought by employers, while employees were attracted to the Commonwealth jurisdiction in the expectation of better terms as to wages, etc. than those awarded under the State jurisdiction. In many cases, also, the organisations concerned in a Commonwealth or Federal award have taken action to have its terms embodied in State awards so that they become binding as a common rule in the industry. Again for the sake of uniformity, legislatures of some States have at times adopted the Commonwealth wage standards as the basis of State awards and agreements. In New South Wales, for instance, the State basic wage for males and females has been varied in accordance with increases granted for "total wages" by the Australian Conciliation and Arbitration Commission. Since May 1974, a minimum wage for adults has also been specified in State awards which has been the same as that granted under Federal awards.

A survey conducted in May 1985, covering most private and government employees (other than those in the defence forces, agriculture or in private domestic service), showed that 36.0 per cent of male employees in New South Wales were covered by Federal awards, determinations and registered collective agreements, 45.3 per cent were covered by State awards, etc., and 16.0 per cent were not covered by any award, etc. The proportions for female employees were 19.9, 64.2, and 13.0 per cent, respectively.

COMMONWEALTH SYSTEM OF INDUSTRIAL ARBITRATION

The Commonwealth system of industrial arbitration has undergone a number of fundamental changes since its inception in 1904. The last of these changes, in 1956, altered the structure of the arbitration machinery by establishing *(a)* an Australian Industrial Court to deal with judicial matters associated with industrial arbitration and *(b)* an Australian Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. In 1977, the powers and functions of the Australian Industrial Court were transferred to the Industrial Division of the Federal Court of Australia. The present legislative basis of the Commonwealth system is the *Conciliation and Arbitration Act 1904.*

The Federal Court of Australia, which is constituted under the *Federal Court of Australia Act 1976*, is a superior court of record. The Industrial Division of the Court is empowered to enforce penal provisions of the arbitration laws, to determine questions of law referred to it by the Conciliation and Arbitration Commission or the Industrial Registrar, to interpret and enforce awards, to hear cases in relation to "secondary boycotts" (in terms of the *Trade Practices Act 1974*), to hear appeals from State courts (other than Supreme Courts) in industrial matters, to hear applications for decisions that State awards or orders are inconsistent with valid Federal awards (and are therefore invalid), to determine eligibility for membership of a registered industrial organisation, and to settle disputes between an organisation and its members. In matters involving disputed elections in organisations, the Industrial Division may direct the Industrial Registrar to make investigations and may order a new election. There is a right of appeal from a decision of a single judge to a Full Court, except in certain circumstances. There is also a limited right of appeal to the High Court where the High Court grants leave to appeal, although some decisions of the Full Court are final.

As at March 1987, the *Australian Conciliation and Arbitration Commission* comprised a President, eleven Deputy Presidents and twenty eight Commissioners. The President and all Deputy Presidents comprise the presidential members.

The Commission is empowered to prevent or settle industrial disputes extending beyond the limits of any one State by conciliation or arbitration. It seeks to encourage and provide means for amicable agreement between the parties to a dispute, or to prevent or settle a dispute by conciliation, before proceeding to exercise its powers of arbitration. The Commission may exercise its powers of its own motion or on the application of a party.

Matters concerning standard hours of work, national wage cases, the minimum wage, annual leave, and long service leave may be dealt with only by a Full Bench of the Commission. A Full Bench is constituted by at least three members of the Commission nominated by the President, including at least two presidential members. In making an award, the Commission is not restricted to the specific claims of the parties to a dispute but must consider the public interest, in particular the state of the national economy and the likely effects on the economy of any award.

Other industrial matters are in general dealt with by a single member of the Commission. Each industry, or group of industries, is assigned to a panel of members of the Commission consisting of a presidential member and at least one Commissioner, with the function of the Commission in relation to that industry, or group of industries, being exercised by members of that panel. Members of the Commission are required to keep themselves acquainted with industrial affairs and conditions.

Further details about the procedures of the Commission are contained in the 1986 issue of the New South Wales Year Book, page 247.

The report of the Committee of Review into Australian Industrial Relations Law and Systems (the Hancock Committee) was released in May 1985. The Report supported retention of the broad system of conciliation and arbitration, but recommended numerous detailed modifications including the recommendation for a greater integration of the Commonwealth and State industrial systems. The recommendations of the Committee are still being considered.

Industrial Organisations. Under the Conciliation and Arbitration Act, an association of employers who have, in the aggregate, at least 100 employees (or a single employer with at least 100 employees), and an association of at least 100 employees, may be registered as an industrial organisation. Registered organisations include both interstate associations and associations operating within one State only. As at 30 June 1986, there were 146 registered employee organisations with membership of 2,571,500, representing 81 per cent of the total membership of trade unions in Australia.

Industrial registries, established in all State and Territory capitals, are controlled by the Industrial Registrar and Deputy Industrial Registrars, who have powers in relation to the registration, rules and membership of industrial organisations, and in relation to awards, disputed elections and other disputes. A Registrar may refer matters of law to the Industrial Division of the Federal Court of Australia and other matters to the Commission. Appeal may be made to the Commission against decisions by a Registrar. Inspectors, who are officers of the Arbitration Inspectorate of the (Commonwealth) Department of Employment and Industrial Relations, secure the observance of Federal industrial awards and agreements. They have power to enter premises, to inspect equipment, material and record books, and to interview employees.

NEW SOUTH WALES SYSTEM OF INDUSTRIAL ARBITRATION

Since its inauguration in 1901, the State system of industrial arbitration has undergone fundamental changes. The present legislative basis of the State system is the Industrial Arbitration Act 1940.

The chief industrial tribunal is the *Industrial Commission of New South Wales.* The Commission comprises a President, a Vice-President and up to 12 (or such higher number as may be prescribed) judicial and non-judicial members, who must (respectively) be legally qualified and experienced in industry, etc. The Commission may exercise specified powers conferred on the subsidiary tribunals described below and certain other powers which belong to it alone. It may determine any widely defined "industrial matter", make awards fixing rates of pay and working conditions (including hours of work), adjudicate in cases of illegal strikes and lockouts or unlawful dismissals, investigate union ballots when irregularities are alleged, determine specified apprenticeship matters, hear appeals from determinations of the subsidiary tribunals and hear and determine appeals against decisions of bodies administering statutory superannuation schemes. The Commission is charged with endeavouring to settle industrial matters by conciliation and may summon persons to a compulsory conference.

Certain specified matters (including questions of jurisdiction referred by a single member or a subsidiary tribunal, appeals regarding a single member's jurisdiction or against industrial magistrates' decisions, proceedings for penalties in respect of illegal strikes or lockouts, proceedings involving cancellation of union registration, and matters referred by the Minister for Industrial Relations and Employment) must be dealt with by the Commission in Court Session. The Commission in Court Session comprises at least 3 persons chosen by the President, including at least one judicial member (or at least 2 in the case of a matter involving solely a question of law) and one non-judicial member. Except in solely legal cases, there must also be one Conciliation Commissioner. However, the Commission in Court Session may delegate its power in these matters to a single member of the Commission. In other matters, the jurisdiction, power and authority of the Commission are exercisable by a single member and there is no appeal from the member's findings, unless a question of jurisdiction is involved or by leave of the Commission in Court Session.

Conciliation Commissioners and Committees. A Senior Conciliation Commissioner and as many Conciliation Commissioners as the Governor thinks fit, may be appointed to assist the Industrial Commission. Additional Conciliation Commissioners may be appointed from time to time for specific periods not exceeding one year. The Industrial Commission is required to call a conference of the Conciliation Commissioners at least once every four months to discuss the operation of the Industrial Arbitration Act and, in particular, the means of preventing and settling industrial disputes and of securing uniform standards of conditions in industry.

The principal function of a Conciliation Commissioner is, in practice, to act as chairman of a Conciliation Committee. However, where any industrial dispute, strike, lockout or cessation of work has occurred, or is likely to occur, a Conciliation Commissioner may call a compulsory conference in order to effect an agreement. Where a conference is called, the Commissioner (or the Conciliation Committee if summoned to sit) must investigate the merits of the dispute whether or not the employees concerned are on strike. If no agreement is reached at the conference, the Commissioner (or Committee) may make an order or award in settlement, may make an interim order or award binding for no longer than one month restoring or maintaining the pre-existing conditions, or may refer the matter to the Industrial Commission. Conciliation Commissioners may also deal with matters referred to them by the Industrial Commission and when so acting they are vested with the full powers of the Commission.

Conciliation Committees are established by the Industrial Commission for particular industries or callings; and comprise a Conciliation Commissioner (as chairman) and an equal number of representatives of employers and employees. At 1 January 1987, there were 421 Conciliation Committees in existence. A Committee has power to inquire into industrial matters in its particular industries or callings and, on reference or application, to make orders or awards prescribing rates of wages and hours of employment for those industries or callings.

Special Commissioners may be appointed to settle a dispute by conciliation. If a Special Commissioner is unable to induce the parties to reach agreement, the Commissioner may decide the issue and the decision is binding for one month subject to appeal to the Industrial Commission.

Any party affected by an order, award or decision of a Conciliation Commissioner or Committee may appeal to the Industrial Commission. The Crown may, in the public interest, appeal against an award. The appeal is determined on the evidence presented at the initial hearing, except that, by the special leave of the Commission, new evidence may be presented if it was not available at the time of the initial hearing. No party other than the Crown may appeal against an award made by consent of all parties appearing in the proceedings.

Notice of all industrial disputes or matters likely to lead to a dispute must be notified to the Industrial Registrar by an industrial union or an employer as soon as either becomes aware of it. The matter may then be dealt with by whichever of the tribunals is thought to be most capable of effecting a settlement. An application for an award may be made either to the appropriate Conciliation Committee or to the Industrial Commission (according to the applicant's own choice). If the Committee hears the matter, it may make an award, but, if its members are equally divided, the chairman may decide the matter or may refer it to the Industrial Commission.

Industrial Unions. Under the Industrial Arbitration Act, an association of employees registered under the Trade Union Act 1881 or an association of employers who have, in the aggregate, at least 50 employees (or a single employer with at least 50 employees) may be registered as an industrial union. At 1 January 1987, there were 111 employee unions and 305 employer unions on the register. Applications by employees for an award of a State industrial tribunal may be made only through a registered industrial union; prior registration as an industrial union is not necessary in the case of an employer association.

An award is binding on all employees and employers in the industry or calling, or on such of them as the Conciliation Committee or the Industrial Commission directs. It also applies for such period (not exceeding three years) as may be specified in the award and thereafter until varied or rescinded.

Employers and industrial unions of employees may make written agreements for a specified period not exceeding five years which, when registered with the Industrial Registrar and endorsed by the Commission, become binding industrial agreements between the parties and on all the members of the union concerned. An Industrial Agreement may be rescinded or varied in writing by the parties at any time either before or during the period specified.

Complaints regarding breaches of awards and registered industrial agreements are investigated by officers of the Department of Industrial Relations and Employment, who may conduct prosecutions. Proceedings regarding industrial agreements and ancillary legislation in relation to the Annual Holidays Act 1944 and the Long Service Leave Act 1955 may also be instituted by employees and by the secretaries of industrial unions. Employees may also proceed before industrial magistrates to recover wages or holiday pay. *Industrial magistrates*, whose powers are cognate with those of (Local Courts') magistrates, exercise jurisdiction in cases arising out of non-compliance with awards, agreements and statutes governing working conditions.

The *Registry of the Industrial Commission* is maintained by the Industrial Registrar, who has power to register industrial unions and their rules, and to inquire into any matter as directed by the Industrial Commission. Decisions of the Industrial Registrar and of industrial magistrates are, in general, subject to appeal to the Industrial Commission.

CROWN EMPLOYEES AND ARBITRATION

The rates of pay, hours of work and other working conditions in the Australian Public Service are prescribed under the Public Service Act and are usually regulated by the operation of Federal awards under the *Conciliation and Arbitration Act 1904*. An organisation of employees in the Public Service must usually submit a claim to the Conciliation and Arbitration Commission.

Under the State industrial arbitration system, employees of the New South Wales Government and of governmental agencies have access to the ordinary industrial tribunals. There is a Government and Related Employees Appeal Tribunal to hear and determine appeals in relation to disciplinary matters, appointments and promotions.

The (State) Public Service Act 1979 provides that the Public Service Board of New South Wales may enter into an agreement as to any industrial matter with any organisation representing any group of officers or employees and that any such agreement is binding on all officers or employees in the class specified. No officer or employee, whether or not he is a member of such organisation, has any right of appeal against the agreement. The Board may also make determinations in respect of individual officers and employees.

INDUSTRIAL ARBITRATION IN THE COAL MINING INDUSTRY

Under the complementary State and Commonwealth Coal Industry Acts of 1946, industrial matters pertaining to the relations of employers and employees in the coal mining industry are dealt with by a Coal Industry Tribunal and its subsidiary Local Coal Authorities.

The Coal Industry Tribunal has all the powers of the Australian Conciliation and Arbitration Commission and the Industrial Commission of New South Wales to consider and determine any industrial dispute or matter in the industry.

The Local Coal Authorities, which are appointed by the Tribunal for a term not exceeding three years, have power to settle local disputes in the industry. They are required to report upon and, if so directed, to settle any dispute or matter referred by the Tribunal and generally to keep the Tribunal advised of disputes and matters arising or likely to arise.

INDUSTRIAL ARBITRATION IN THE OIL INDUSTRY

In 1980, complementary legislation was passed by the Commonwealth and New South Wales Parliaments to permit joint sittings of the Commonwealth Conciliation and Arbitration Commission and the New South Wales Industrial Commission to deal with industrial matters in the New South Wales oil industry. Matters cannot be dealt with under the (State) Industrial Arbitration Act whilst they are subject to common negotiations under the Commonwealth Act.

INDUSTRIAL ARBITRATION (COMPLEMENTARY INDUSTRIAL RELATIONS SYSTEM) AMENDMENT ACT 1983

The (State) Industrial Arbitration (Complementary Industrial Relations System) Amendment Act enables the conduct of joint proceedings of the Industrial Commission of New South Wales and the Australian Conciliation and Arbitration Commission and the reference of industrial matters from one Commission to the other. The Act became operational on 16 December 1983 with the passing of complementary legislation by the Commonwealth Government.

STRIKES AND LOCKOUTS

Under the Commonwealth arbitration system, there has been no general prohibition of strikes and lockouts since 1930 but they may be prohibited by the terms of particular awards. If a strike or lockout which breaches an award occurs, or is likely to occur, the Industrial Division of the Federal Court of Australia may order compliance with the terms of the award and may impose a maximum penalty of $1,000 (or $500 per day where the award provides for the breach being considered a separate breach for each day it continues). If a breach of an award is threatened or has occurred, the Industrial Division may commence hearing an application for an order of compliance only if a presidential member of the Conciliation and Arbitration Commission has issued a certificate permitting the dispute to proceed to the Industrial Division. Before issuing a certificate, the presidential member is required to make every effort, by conciliation or arbitration, to settle the dispute between the parties.

Under the State arbitration system, the following strikes are illegal:

(*a*) strikes by employees of the Crown or of semi-government and local government bodies;

(*b*) strikes commenced before the expiry of fourteen days' notice to the Minister for Industrial Relations and Employment by the executive of an industrial union of employees setting out the matters in dispute, the proposed date of commencement of the strike and a statement of the action already taken to negotiate a settlement of the dispute, and strikes commenced after such matters in dispute have been settled; and

(*c*) other strikes by employees in an industry, the conditions of which are wholly or partly regulated by an industrial award or agreement. (However, an individual union of employees may render an award which has been in force for at least twelve months no longer binding on its members by a secret ballot, provided that at least two-thirds of the members vote and a majority of the voters approve.)

Where the members of an industrial union of employees take part in, or assist, an illegal strike, the Industrial Commission may order the union to pay a maximum penalty of $4,000. Penalty proceedings may not, however, be commenced later than the expiration of fourteen days from the cessation of the strike to which the proceedings refer. In defence to any proceedings, the union may claim that it has tried, by means reasonable under the circumstances, to prevent its members from taking part in or assisting the strike, or that the strike was provoked by unjust and unreasonable action by the employer. The Industrial Commission is also permitted to cancel a union's registration if it is satisfied that any of the union's members were taking part in, or aiding and abetting, an illegal strike in an essential service industry. (An essential service industry includes the supply of fuel or other commodity or service necessary for the conduct of such services as public transport, the supply of electricity, water or gas to the public, the provision of fire-fighting, the removal of garbage, sewerage, and drainage, and the conduct of prisons.) In lieu of cancelling a union's registration, the Commission may require the exclusion of a group or section of the union from eligibility for membership of that union.

Under the State arbitration system, all lockouts, except where the employees in the industry are taking part in an illegal strike, are illegal and a maximum penalty of $4,000 is prescribed.

WAGES AND EARNINGS

Wage rates determined by all industrial arbitration authorities in Australia before July 1967 comprised two elements: a basic or foundational wage common to most rates of wage and a separate secondary wage for each occupation, or group of occupations, specified in each award. However, since July 1967, by decision of the Australian Conciliation and Arbitration Commission, the practice of specifying the basic wage and secondary wages separately in Federal awards has been discontinued in favour of the specification of a "total wage" for each occupation, etc. The New South Wales Industrial Commission and Tasmanian State Industrial Boards continue to specify basic wages and secondary wages separately.

The award wage for each occupation (i.e. sum of basic wage and appropriate secondary wage, or, if these elements are not specified separately, the "total wage") is the lowest amount payable to employees in each award category, except where a higher "minimum wage" has been declared (see below), but employers may pay amounts above those specified in awards.

Since July 1967, the Australian Conciliation and Arbitration Commission has prescribed a "minimum wage" representing the lowest wage payable to adult males under certain of its awards, irrespective of occupation. In May 1974, the Commission extended the minimum wage to adult females and awarded the same minimum wage to adult males and females, with the wage for females to be phased in over a period of about a year. This "minimum wage" is in practice the lowest wage payable to adult males and females under any Federal award but is not regarded for purposes of fixing rates for each occupation as a foundational element in the total wage. The practice of setting a "minimum" award wage irrespective of occupation has also been adopted by arbitration authorities in all States.

Under all Federal awards, there is now "equal pay for work of equal value" for males and females. The operative date for the implementation of this principle was generally 30 June

1975. Similarly, for all State awards, males and females employed under any given award have received equal pay from August 1977, although this equality was progressively inserted in awards from May 1974 following a decision in that month by the New South Wales Industrial Commission. However, in the case of the adult female basic wage (under State awards), equality with the male basic wage has not yet been implemented, although both adult males and females have been receiving the same increases since May 1974.

WAGES UNDER FEDERAL AND STATE AWARDS

The history of National Wage Cases and minimum wages under Federal and State awards up until May 1982 is given on pages 276-282 of the 1983 issue of the New South Wales Year Book.

In December 1982, all Governments in Australia agreed that a wages pause was necessary on economic grounds and took action to stabilise pay and conditions in the public sector. The Commonwealth Government passed the *Salaries and Wages Pause Act 1982* suspending for twelve months from December 1982 any increase in remuneration to Commonwealth employees. In the same month, both the Australian Conciliation and Arbitration Commission and the New South Wales Industrial Commission decided on a general wage pause until 30 June 1983 for all employees under Federal and State awards.

On 29 June 1983, the Australian Conciliation and Arbitration Commission commenced hearing submissions on the future of the wages pause. A subsequent decision by the Commission, on 23 September 1983, effectively lifted the wage pause and a return to wage indexation was announced. Under the new system, the Commission was to adjust the wages and salaries of persons employed under Federal awards every six months, in relation to the previous two quarterly movements in the Consumer Price Index (unless it was persuaded to the contrary). The principles of the new system were to be reviewed after a period of two years.

Prices and Incomes Accord: 1985-87 Agreement

In September 1985, a new agreement on wage policy, linking wage indexation adjustment to the depreciation of the Australian dollar, was reached by the Commonwealth Government and the Australian Council of Trade Unions (ACTU). The agreement represented a commitment by both parties to a further two years, to October 1987, of the Prices and Incomes Accord. It provided for a discount in wage indexation, compensated by subsequent tax reduction, and for amendments to wage-fixing principles. In addition, it was agreed that occupational superannuation would be extended and improved, financed by productivity growth, and that a national superannuation scheme would be established. The agreement required a no extra claims commitment by unions, while the Government would seek price restraint, by discouraging pricing policies which exceeded general movements in unit costs.

Wages

The national wage adjustment scheduled for June 1986 would be discounted by 2 per cent, provided that the cumulative effect of depreciation, as measured in the Consumer Price Index, was 2 per cent or greater, and provided also that the discount was offset by tax reduction.

Wage Tax Trade-Off

From 1 September 1986, personal income tax would be reduced by an amount equal to the after-tax equivalent of a 2 per cent wage increase.

Wage-Fixing Principles

It was agreed by both parties that the principles applied in the Conciliation and Arbitration Commission would be amended in October 1985 to allow claims for a reduction in standard hours to 38 to be arbitrated. Amended principles would provide for a special review of the problems associated with the difference between paid rates and minimum rates awards.

Superannuation

It was agreed that superannuation would be extended and improved on an industry by industry, occupation by occupation or, in limited circumstances, company by company basis. The improvement would be offset against national productivity and would be based on a 3 per cent wage equivalent. It was agreed that negotiations on superannuation could proceed on this basis, provided that the cost impact would not occur before 1 July 1986. The Government has now issued a set of guidelines (determined after consulation with employers and unions) covering vesting, preservation, security, portability, contributions and control. These provisions form the basis upon which tax concessions are provided for occupational superannuation.

In June 1986, the Australian Conciliation and Arbitration Commission awarded a 2.3 per cent increase in award wages to reflect part of the 4.3 per cent increase in the Consumer Price Index for the September and December quarters 1985. The Commonwealth Government also instituted the "wage-tax trade-off" of 2 per cent, which came into effect in December 1986.

Abolition of Wage Indexation

In December 1986, the Australian Conciliation and Arbitration Commission announced the abolition of wage indexation and the introduction of a two-tiered wage-fixing system. The first decision under the new system was announced on 10 March 1987. The first tier component was a flat increase of $10 per week in award wages for adults. The second tier component, an increase which was not to result in an increase in costs exceeding 4 per cent of wages, was to be negotiated between the parties concerned.

AWARD RATES OF PAY INDEXES

The award rates of pay indexes compiled by the ABS are designed to reflect movements in minimum award rates of pay for a representative sample of award designations. Award rates of pay indexes have been compiled for both "wage and salary" and "wage" earners and they have been based on the occupation structure that existed in 1976.

The source used to base the current series of indexes is the May 1976 Survey of Employee Earnings and Hours, which obtained from a sample of approximately 70,000 employees details of the particular award classification under which they were employed. The base period chosen for the index was June 1976 and estimates of minimum award rates of pay are expressed as index numbers such that June 1976 = 100.0.

Further information on definitions, scope, coverage, etc. is contained in the explanatory notes to the ABS publication *Award Rates of Pay Indexes, Australia* (Catalogue No. 6312.0). For further information on the current series, see the 1986 issue of the New South Wales Year Book, page 253 and for previous wage rates series, see the 1983 issue of the New South Wales Year Book, page 283.

The following tables show indexes of award rates of pay for New South Wales for the last 6 years. In some cases, when awards etc. are varied, the new award rates are made retrospective. Also, there is generally an unavoidable, and sometimes considerable, delay in the receipt of notification of changes in award rates in respect of the classifications included in the indexes. Because of these factors, the figures are subject to revision.

Indexes of Award Rates of Pay, N.S.W., 31 December Base: Weighted Average Minimum Award Rate, June 1976 = 100.0

Employees (a)	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Weekly Wage Earners						
Adult males	169.4	186.0	195.5	203.9	217.2	222.1
Adult females	167.8	184.8	193.5	202.3	215.6	221.4
Adult persons	*169.0*	*185.7*	*195.0*	*203.4*	*216.7*	*221.9*
Weekly Wage and Salary Earners						
Adult males	168.0	184.5	193.7	202.0	215.3	220.3
Adult females	166.6	183.8	192.4	200.9	214.2	221.6
Adult persons	*167.5*	*184.3*	*193.3*	*201.6*	*214.9*	*220.7*
Hourly Wage Earners						
Adult males	169.7	190.1	200.0	209.7	223.5	228.6
Adult females	167.9	186.5	195.5	206.3	220.7	226.7
Adult persons	*169.2*	*189.1*	*198.7*	*208.8*	*222.7*	*228.1*

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, Private Households Employing Staff and in the Defence Forces.

Indexes of Weekly Award Rates of Pay, Wage and Salary Earners, Adult Persons, by Industry, N.S.W., 31 December
Base: Weighted Average Minimum Weekly Award Rate, June 1976 = 100.0

Industry	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Mining	174.4	183.7	190.3	200.9	213.9	219.4
Manufacturing	170.6	187.4	196.4	204.5	217.8	222.9
Food, beverages and tobacco	164.7	186.2	194.5	203.4	216.6	221.6
Textiles; Clothing and footwear	164.9	188.8	196.9	205.3	218.6	223.6
Paper, paper products, printing etc.	158.3	179.8	187.6	195.3	208.0	212.7
Chemical, petroleum and coal products	163.7	178.3	186.2	193.7	206.2	210.9
Metal products, machinery and equipment	177.8	190.5	199.7	207.9	221.4	226.7
Basic metal products	172.7	185.5	194.5	202.4	213.5	220.6
Fabricated metal products, other machinery and equipment	182.3	195.2	204.4	212.8	226.7	232.2
Transport equipment	173.2	185.3	194.7	202.6	215.8	220.7
Other manufacturing *(a)*	164.7	185.2	195.3	203.2	216.5	221.4
Electricity, gas and water	161.7	175.1	183.0	190.6	202.8	207.4
Construction	171.3	184.9	196.5	204.5	217.8	222.4
Wholesale trade	166.1	184.4	193.9	202.9	216.1	221.1
Retail trade	161.7	181.2	189.7	200.2	213.2	218.1
Transport and storage	169.0	183.6	193.2	201.9	215.5	220.4
Communication	166.8	188.4	197.4	205.5	220.4	225.4
Finance, property and business services	170.3	184.0	192.7	200.6	213.7	218.6
Public administration and defence *(b)*	162.3	178.0	186.9	194.7	209.2	214.1
Community services	164.8	185.3	193.6	201.7	214.7	224.9
Recreation, personal and other services	163.4	177.2	186.7	194.5	207.2	212.0
All industries *(c)*	**167.5**	**184.3**	**193.3**	**201.6**	**214.9**	**220.7**
Federal awards	***171.9***	***187.8***	***196.3***	***204.9***	***219.2***	***224.1***
State awards	***165.6***	***181.9***	***191.8***	***200.3***	***213.9***	***219.1***

(a) Comprises Wood, Wood Products and Furniture, Non-metallic Mineral Products, and Miscellaneous Manufacturing. *(b)* Excludes employees in the Defence Forces. *(c)* See footnote *(a)* in previous table.

Further indexes of award rates of pay are given in the ABS publication *Award Rates of Pay Indexes, Australia* (Catalogue No. 6312.0).

EARNINGS

The following tables show average weekly earnings of New South Wales employees, as obtained from the Survey of Average Weekly Earnings. The statistics represent average gross (before tax) earnings of employees and do not relate to average award rates nor to the earnings of the "average person". Estimates of average weekly earnings are derived by dividing estimates of weekly total earnings by estimates of employment. Changes in the averages may be affected not only by changes in the level of earnings of employees but also by changes in the overall composition of the labour force. There are several aspects which can contribute to compositional changes, such as variations in the proportions of part-time, casual and junior employees, variations in the occupational distribution within and across industries and variations in the distribution of employment between industries.

The ABS publication *Average Weekly Earnings, States and Australia* (Catalogue No. 6302.0) provides details of survey definitions, scope and coverage, and a note regarding standard errors.

Average Weekly Earnings of Employees *(a)*, N.S.W.
($)

	Males			*Females*			*Persons*		
	Full-time adults		*All males*	*Full-time adults*		*All females*	*Full-time adults*		*All employees*
Period (b)	*Weekly ordinary time earnings*	*Weekly total earnings*	*Weekly total earnings*	*Weekly ordinary time earnings*	*Weekly total earnings*	*Weekly total earnings*	*Weekly ordinary time earnings*	*Weekly total earnings*	*Weekly total earnings*
1985:									
November	427.50	465.60	422.30	343.00	352.90	274.60	401.10	430.40	363.60
1986:									
February	437.20	473.50	434.10	349.80	358.40	283.80	409.00	436.30	373.70
May	438.90	478.00	437.30	354.50	364.70	285.30	412.60	442.60	377.50
August	454.10	492.70	452.60	363.40	373.20	289.00	424.80	454.10	385.40
November	458.50	499.00	454.10	373.80	384.20	294.10	430.40	461.00	386.50
1987:									
February	459.30	495.50	447.60	377.00	386.50	296.80	432.10	459.50	385.00

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, Private Households Employing Staff and in the Defence Forces. *(b)* Weekly earnings are based on the last pay period ending on or before the third Friday of the month shown.

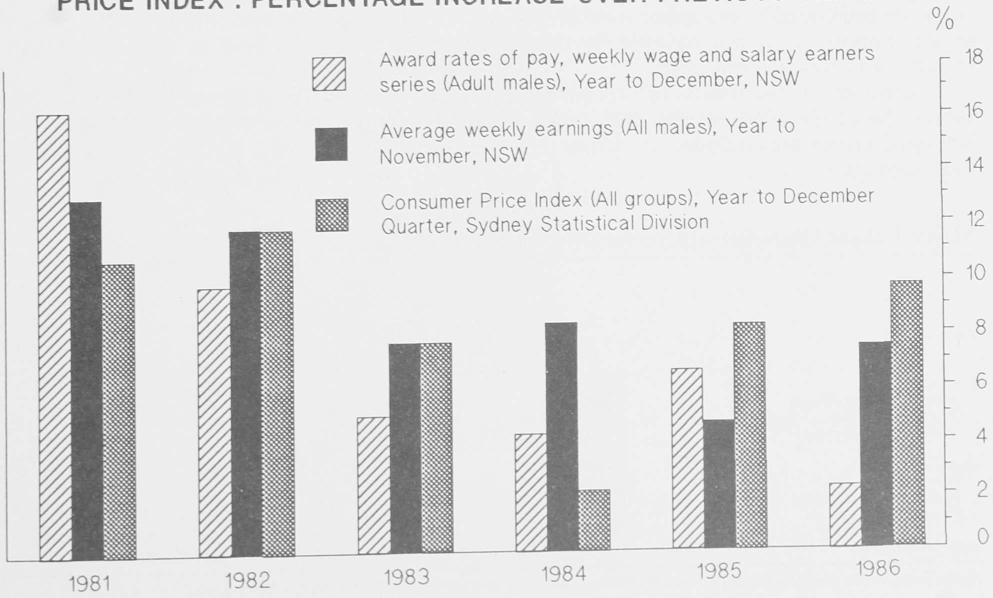
In the November survey each year, a more detailed dissection of earnings and additional information on hours paid for is collected. A summary of the results of the November 1986 survey for New South Wales is shown in the following table. More detailed results and notes regarding scope, coverage, definitions and standard errors are included in *Average Earnings and Hours of Employees, Australia* (Catalogue No. 6304.0).

Full-time Non-managerial Employees *(a)*: Average Earnings and Hours, Principal Industries, New South Wales November 1986 *(b)*

		Non-manufacturing industries				
Employees	*Manufacturing industries*	*Retail trade*	*Finance, property and business services*	*Public administration, etc*	*Total, non-manufacturing industries*	*All industries*
		Average weekly earnings ($)				
Adult males	455.70	363.10	444.50	431.80	474.40	469.00
Junior males	230.40	203.70	222.30	222.30	220.30	223.00
Adult females	345.10	312.60	369.00	381.20	378.50	373.40
Junior females	200.80	199.10	219.20	227.80	213.80	212.60
		Average weekly hours paid for				
Adult males	42.0	40.9	39.3	38.1	39.5	40.2
Junior males	39.0	40.2	39.2	37.2	39.1	39.1
Adult females	39.5	39.4	37.4	36.6	37.7	37.9
Junior females	38.6	38.0	38.6	35.9	38.7	38.7
		Average hourly earnings ($)				
Adult males	10.90	8.90	11.30	11.30	12.00	11.70
Junior males	5.90	5.10	5.70	6.30	5.60	5.70
Adult females	8.70	7.90	9.90	10.40	10.00	9.80
Junior females	5.20	5.20	5.70	6.30	5.50	5.50

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, Private Households Employing Staff and in the Defence Forces. *(b)* Relating to the last pay period ending on or before 21 November 1986.

AWARD RATES OF PAY, AVERAGE WEEKLY EARNINGS AND CONSUMER PRICE INDEX : PERCENTAGE INCREASE OVER PREVIOUS YEAR.



Statistics on the distribution and composition of employee earnings and hours are compiled by the ABS from a sample survey conducted in May each year. A summary of the results of the May 1986 survey for New South Wales is shown in the following tables. More detailed results and notes regarding scope, coverage, definitions and standard errors are included in the ABS publication *Distribution and Composition of Employee Earnings and Hours, Australia* (Catalogue No. 6306.0).

All Employees *(a)*: Distribution by Levels of Weekly Earnings, N.S.W., May 1986

Employees	*Weekly Earnings* *Under $100*	*$100 and under $200*	*$200 and under $300*	*$300 and under $400*	*$400 and under $500*	*$500 and under $600*	*$600 and over*	*Median Weekly Earnings*	*Mean Weekly Earnings*
	per cent of employees							*($)*	
Males	3.0	5.9	12.2	27.5	20.1	13.8	17.4	403.90	438.30
Females	9.2	16.9	27.3	27.2	11.8	5.3	2.2	291.60	291.70

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, Private Households Employing Staff and in the Defence Forces.

Full-time Non-managerial Employees *(a)*: Composition of Average Weekly Earnings and Average Weekly Hours Paid for, N.S.W., May 1986

	Average weekly earnings ($)					*Average weekly hours paid for*		
		Ordinary time						
Employees	*Overtime*	*Award etc. pay*	*Payment by measured result (b)*	*Other pay*	*Total*	*Overtime*	*Ordinary time*	*Total*
Adult males	44.10	385.60	8.90	11.90	450.50	2.7	37.6	40.3
Junior males	12.80	200.90	1.30	4.20	219.20	1.5	38.1	39.6
Adult females	8.90	347.50	1.00	6.20	363.60	0.6	37.4	38.0
Junior females	3.40	199.70	*(c)*	3.00	206.50	0.4	37.8	38.2

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, Private Households Employing Staff and in the Defence Forces. *(b)* Includes payment by piecework, task bonus and commission. *(c)* Subject to sampling variability too high for most practical purposes.

Major Labour Costs of the Private Sector

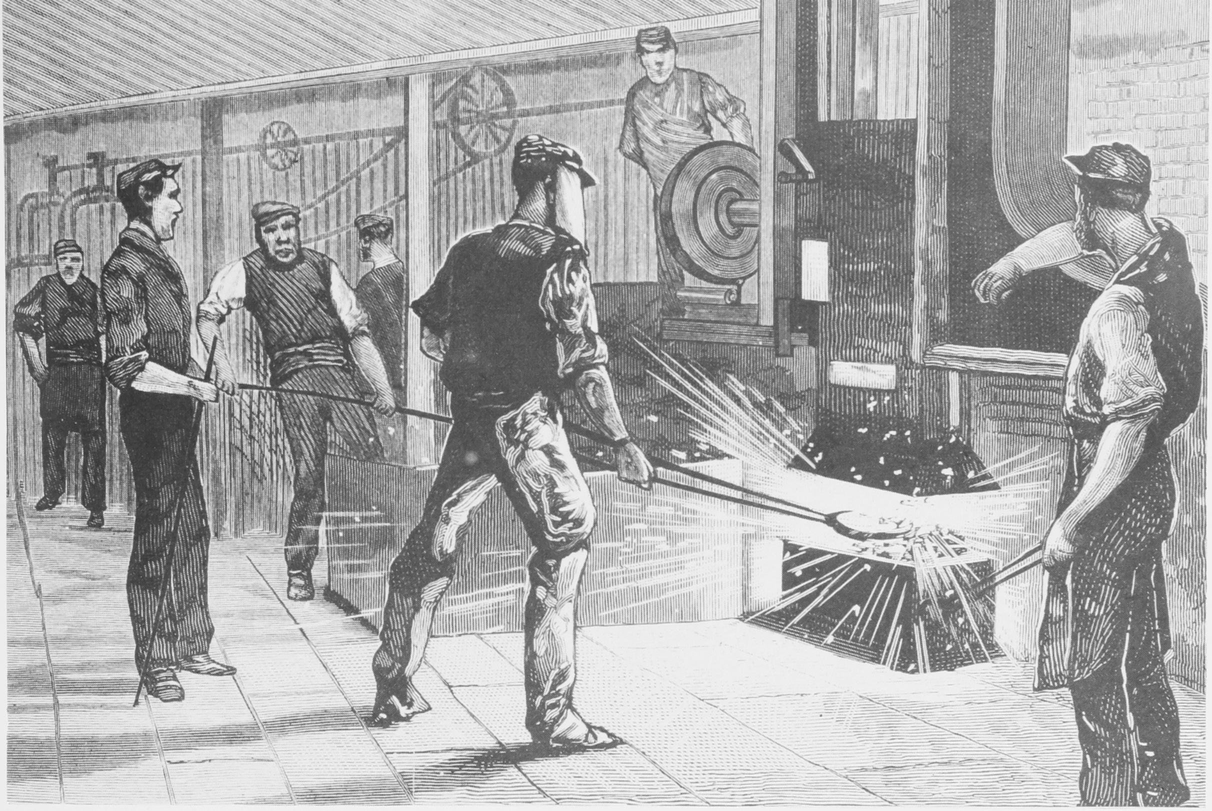
In 1986, the ABS conducted a Survey of Major Labour Costs, the purpose of which was to determine the extent of "major" labour costs for the private sector in respect of 1985-86. Collected in the survey were data on earnings (classified by gross wages and salaries, and severance, termination and redundancy payments) and other major labour costs (classified by payroll tax, workers' compensation, and superannuation). Together, these major labour costs are estimated to represent over 90 per cent of all the labour costs borne by the private sector. Labour costs not covered by the survey included fringe benefits, welfare services, training and recruitment costs.

A summary of the results of this survey for New South Wales is shown in the following tables. More detailed results and notes regarding scope and coverage, definitions and standard errors are included in *Major Labour Costs, Private Sector, Australia* (Catalogue No. 6348.0).

Major Labour Costs Private Sector *(a)*, N.S.W., 1985-86

Type of Cost	*Total cost ($m)*	*Costs per employee ($)*	*Costs as a proportion of total labour costs (per cent)*	*Costs as a proportion of earnings (per cent)*
Earnings	24,666	18,360	90.1	
Gross wages and salaries	24,034	17,890	87.8	..
Severance, termination and redundancy payments	632	470	2.3	
Other labour costs	2,703	2,020	9.9	10.9
Payroll tax	1,016	760	3.7	4.1
Workers' compensation	867	650	3.2	3.5
Superannuation	820	610	3.0	3.3
Total labour costs	**27,369**	**20,370**	**100.0**	..

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, and Private Households Employing Staff.



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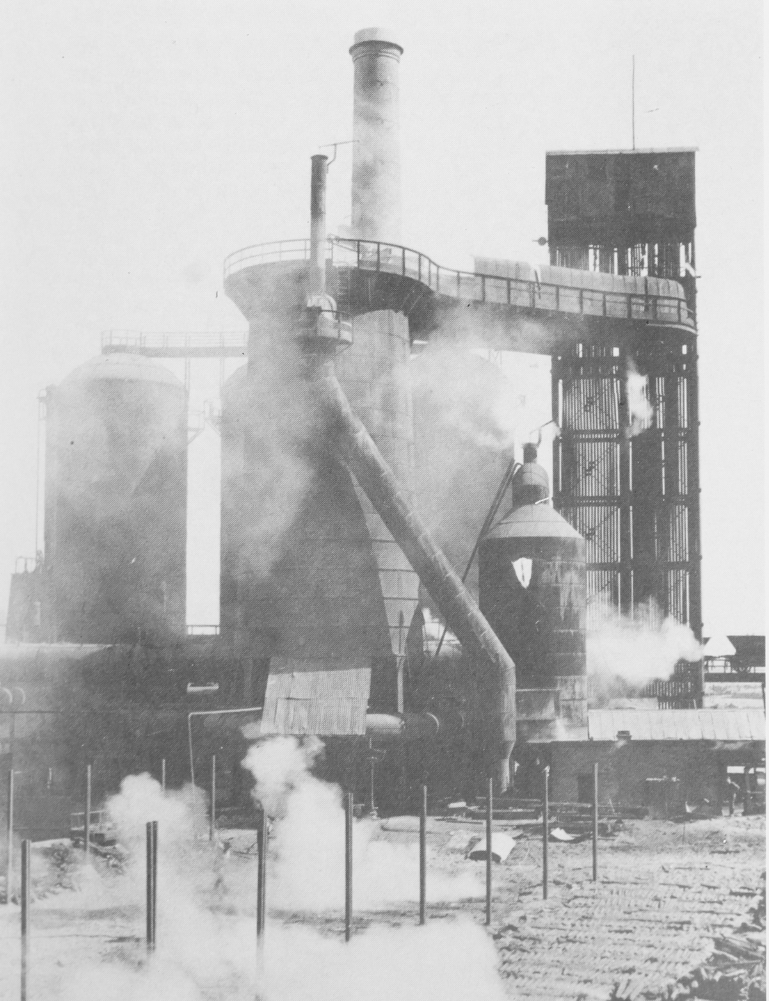
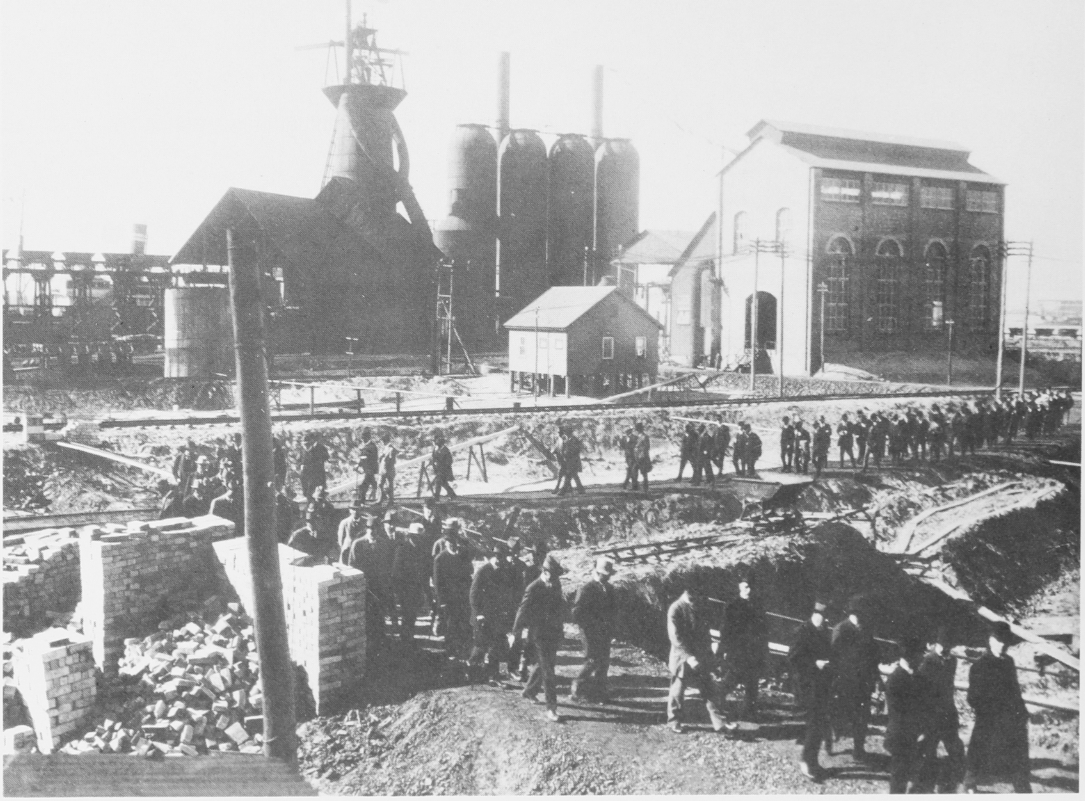


Above: The Eskbank Ironworks at Lithgow from the "Australasian Sketcher", 7th May 1881. This was Australia's second attempt to find a suitable site for the smelting of iron, the choice of Lithgow being influenced by the proximity of raw materials, in particular, quality coking coal as well as iron ore and limestone. It opened in 1875, but pig iron production became unprofitable and the blast furnace was demolished in 1882.

Left: Lithgow Steel Works, early 1900s. Australia's first steelmaking furnace was tapped at Lithgow in 1900. Iron production began again here in 1907, the year in which George and Charles Hoskins, cast iron pipe manufacturers, purchased the plant from William Sanford. In 1928 the Hoskins and other companies formed Australian Iron and Steel Limited (AIS) and work commenced on a new iron and steel works at Port Kembla, using local coal and limestone and iron from South Australia. By 1932, mainly because of the distance to markets and the decline in the availability of raw materials, Lithgow had been phased out. AIS became a subsidiary of BHP in 1935.

Mitchell Library, State Library of New South Wales



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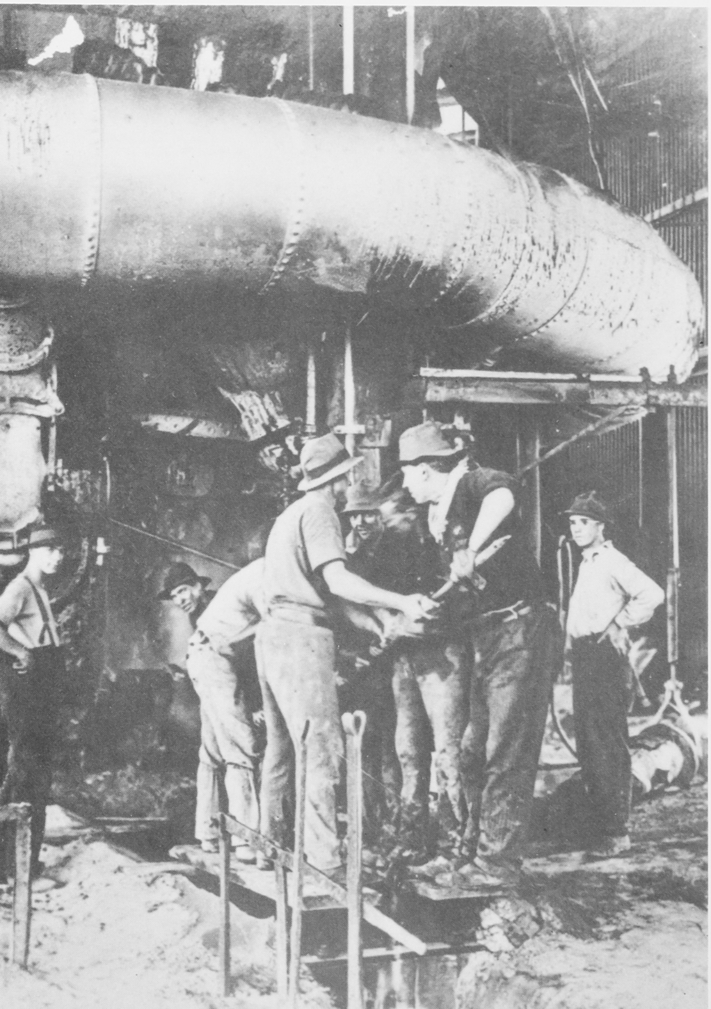
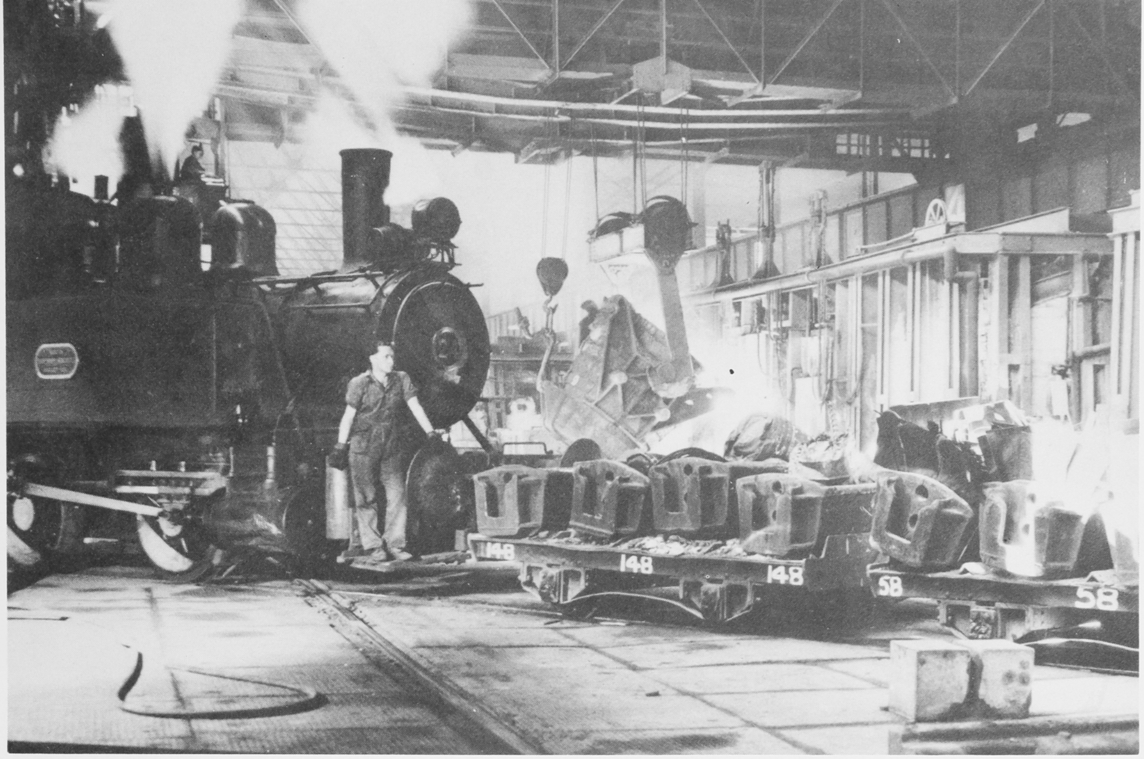
Above: Workers coming off shift at the Broken Hill Proprietary Company Ltd. (BHP) steelworks at Newcastle. Prior to about 1910, BHP was mainly involved with the mining, smelting and refining of silver, lead and zinc although it did undertake iron ore quarrying at Iron Knob in South Australia. With skills in metallurgy, an awareness of the relative abundance of raw materials in Australia and conscious of a rising local demand for steel products, the directors decided to enter the iron and steel industry with the construction of an iron and steel works at Newcastle.



Left: The first tapping of Newcastle's No.1 blast furnace on the 9th April 1915. The furnace was "blown in" in 1915. In 1925 BHP decided to establish its own coal mines to ensure supplies of coal and by the 1980s about 90 per cent of the coal used in steel production came from the Company's own mines. The major source of iron ore between 1915 and 1951 was Iron Monarch in South Australia. By 1951 supplies from Western Australia became available.

BHP Archives

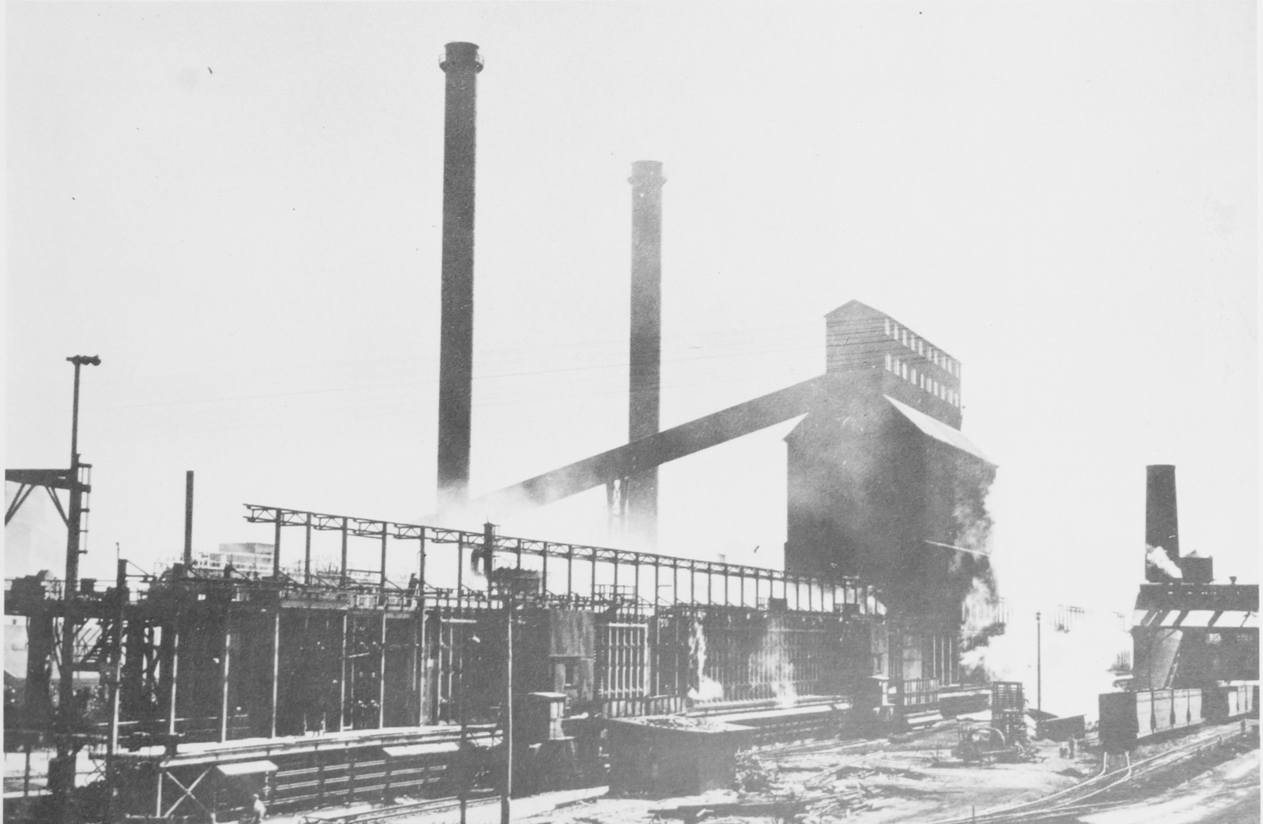


BHP Archives

Above: Steelmaking Newcastle, 1948. Scrap being delivered by works locomotive to the charging floor of the Open Hearth Shop. In the background, an open-hearth furnace is being charged with molten pig iron from a 38 ton ladle. Scrap and pig iron, iron ore and limestone were added to the furnace and after a series of chemical reactions the molten steel was tapped and cast into ingots.

The iron and steel industry is a major user of coal in N.S.W. Coal is crushed and washed and then baked in ovens to produce coke, an essential raw material for the industry. At Port Kembla a new battery of 72 coke ovens was constructed between 1950 and 1953 to coincide with the blowing in of No. 3 blast furnace. The photo below shows the first discharge of 24 new ovens in 1953.

BHP Archives



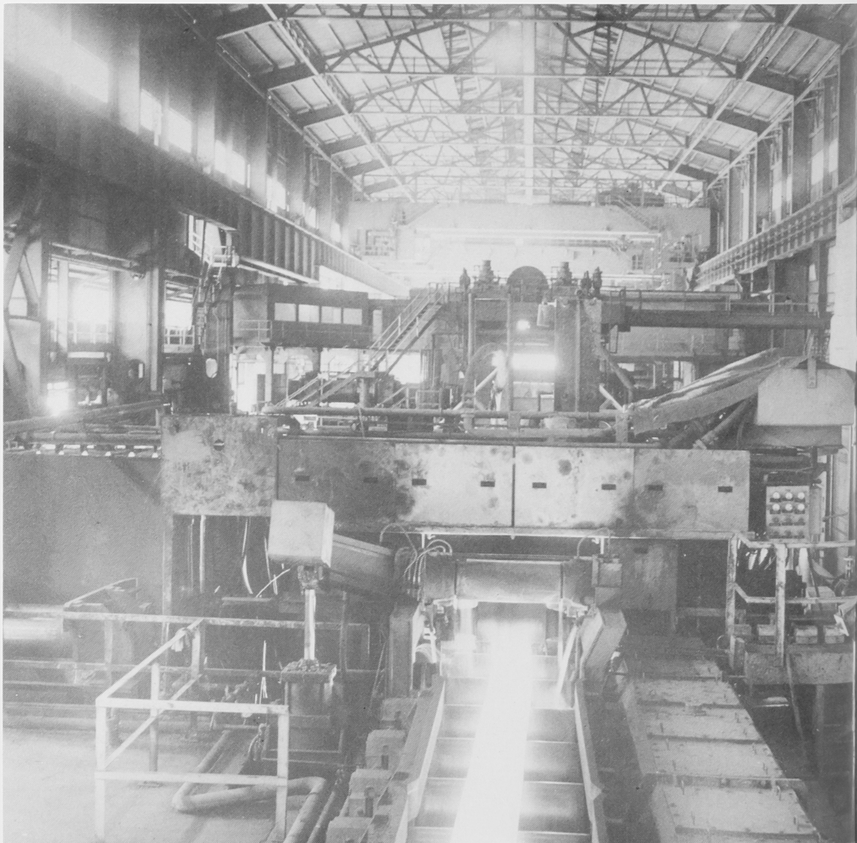
BLAW-KNOX
HITACHI

Bloom mill operating pulpit, Newcastle Steelworks. As with many operations in modern iron and steel manufacturing plants, much of the equipment in the mill is computer controlled. Rolling mills, of which bloom mills are one type, roll the cast steel to refine and compact the grain structure thus giving greater toughness, shock resistance and tensile strength. Bloom mills reduce ingots to smaller square cross-sections from which rails and heavy structurals are produced.

BHP Photo Library

Plate Mill at the BHP Steelworks, Newcastle. Following rolling in slab mills, steel ingots undergo further rolling in finishing mills to form steel plate.

BHP Photo Library



BHP Photo Library

The No. 5 Blast Furnace at the Port Kembla Steelworks. This furnace came into service in 1972 and is Australia's biggest blast furnace. Raw materials, iron ore in various forms, coke and limestone, as a flux, are fed into the top of the furnace while molten iron and slag are drained from the bottom. Preheated air, which causes the coke to generate carbon monoxide gas is blown in. Heat and gas chemically reduce the iron oxides to metallic iron by removing the oxygen present.

The Basic Oxygen Steelmaking (BOS) system at BHP's Newcastle Steelworks. This modern steelmaking process has replaced all open-hearth furnaces previously used for steelmaking in Newcastle. In the BOS process steel scrap (30 per cent) and molten iron (70 per cent) are fed into large brick lined vessels. Almost pure oxygen is blown in to melt the scrap and lower the carbon content of the molten metal and then burnt lime is added to form slag. The steel is poured into a ladle where further treatment may take place, and materials such as ferro alloy are added to ensure the steel meets the required specifications.

BHP Photo Library

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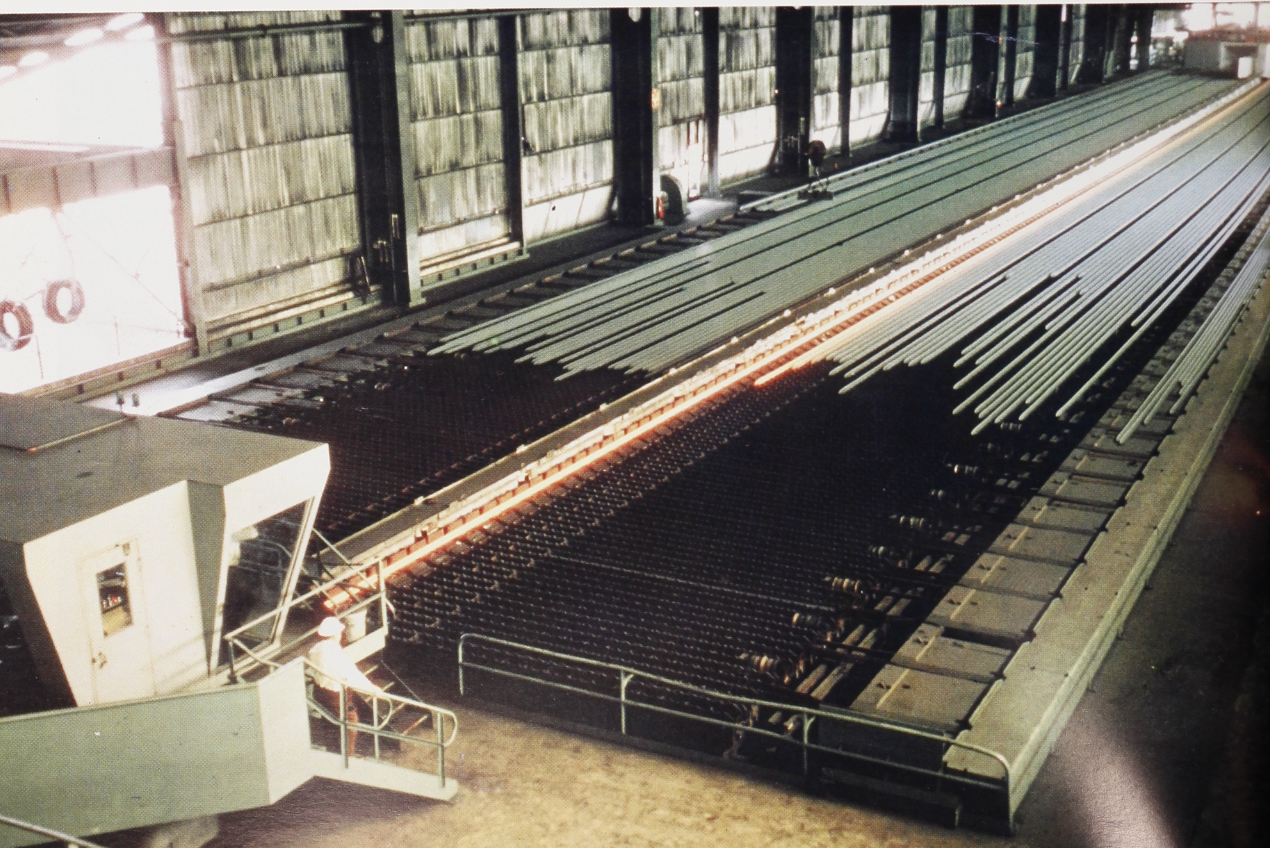
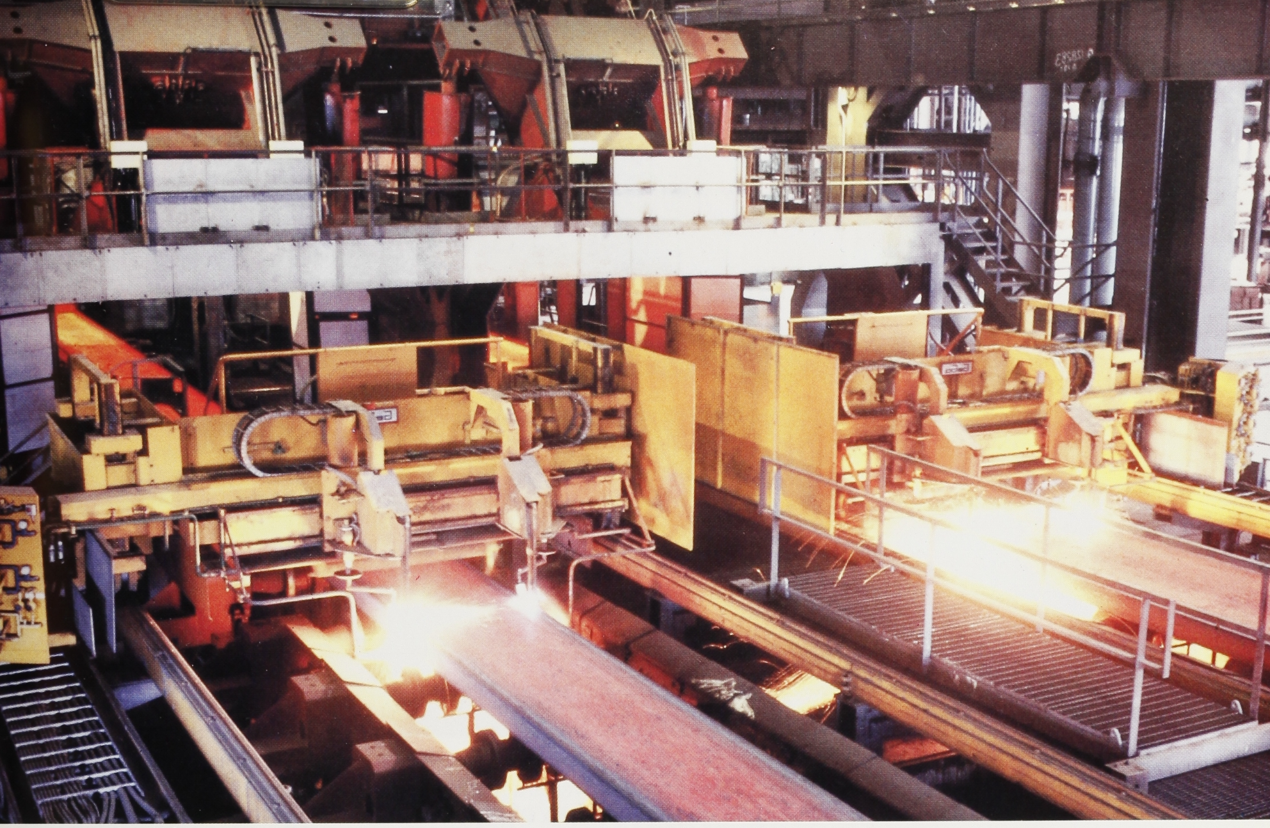
Skelp Mill at the Newcastle Steelworks where steel is rolled into skelp. Skelp is narrow hot rolled strip used as feed for steel pipe manufacture.

Angles on a cooling bed in the No. 2 Merchant Mill at Newcastle.

BHP Photo Library





BHP Photo Library

Steel tapped during the BOS process is shaped by continuous casting where semi-finished steel sections such as slabs, blooms or billets, are formed directly from molten steel. This is a technologically advanced method compared with the former ingot casting method. The photo shows the run-out table and cut-to-length machines at the continuous slab caster.

Steel slabs on the transfer bed of the Slab Mill at the Port Kembla Steelworks. From the Slab Mill, the slabs are transferred to the slab yard, where they are inspected, scarfed of surface defects, and stacked for transfer to the plate and hot strip mills.

BHP Photo Library

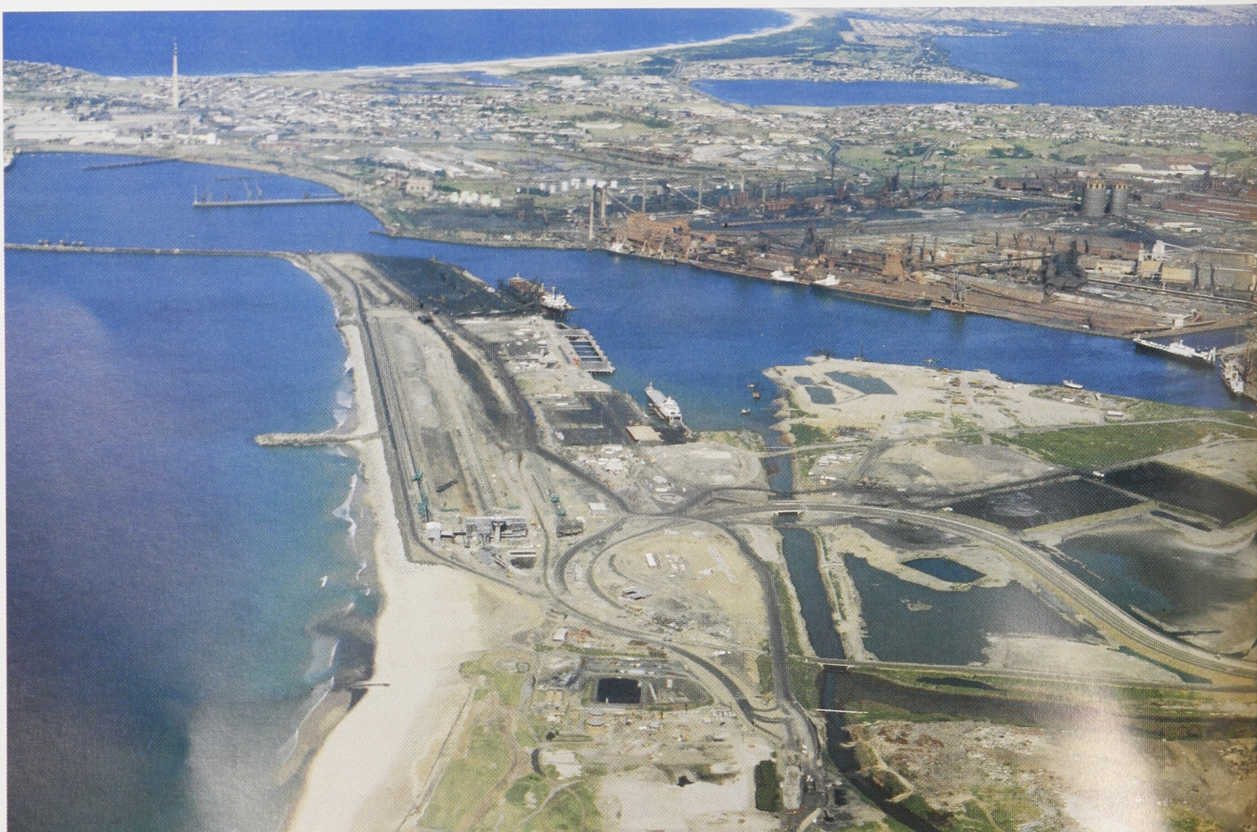
MOUNT NEWMAN

BHP Photo Library

A vessel from Mt Newman, an area in the Pilbara region of Western Australia, off-loads iron ore in Port Kembla's harbour. The Mount Newman Mining Co Pty Ltd (a subsidiary of BHP) manages the Mount Newman project, set up to develop the area's rich iron ore deposits. Mt Newman, today, supplies most of Port Kembla's iron ore. BHP's own shipping fleet has always played a vital role in the Company's activities.

View of Port Kembla, 1981. In the foreground the new coal loader works are in progress. In the centre foreground is the rail loop which will deliver wagons to the stacking area, and between the two existing berths the new multi-purpose berth is under construction. Along the opposite side of the channel are the Australian Iron and Steel ore discharge berths.

Maritime Services Board of New South Wales



Major Labour Costs per Employee by Industry *(a)*, Private Sector, N.S.W., 1985-86

Type of cost	*Mining*	*Manu-facturing*	*Con-struction*	*Wholesale and retail trade*	*Transport and storage; Communi-cation*	*Finance, property and business services*	*Community services; Electricity gas and water*	*Recreation personal and other services*	*Total all industries*
					— ($) —				
Earnings	34,970	20,980	20,490	15,520	22,690	20,070	16,340	11,610	18,360
Gross wages and salaries	34,050	20,400	20,200	*(b)*	22,230	19,590	16,090	*(b)*	17,890
Severance, termination and redundancy payments	920	590	*(b)*	*(b)*	*(b)*	*(b)*	250	*(b)*	470
Other labour costs	6,530	2,900	*(b)*	1,350	2,870	2,060	*(b)*	*(b)*	2,020
Payroll tax	2,000	1,070	*(b)*	600	1,020	830	*(b)*	*(b)*	760
Workers' compensation	2,550	1,090	*(b)*	420	1,130	200	260	260	650
Superannuation	1,980	740	*(b)*	330	720	1,030	*(b)*	*(b)*	610
Total labour costs	**41,500**	**23,870**	**22,970**	**16,870**	**25,560**	**22,130**	**17,450**	**12,420**	**20,370**
					— *per cent* —				
Superannuation— Employees covered	87.4	51.2	*(b)*	24.1	32.6	35.4	*(b)*	*(b)*	34.0
					— ($) —				
Cost per employee covered	2,240	1,450	1,400	1,370	2,230	2,590	*(b)*	2,030	1,780

(a) Excludes employees in Agriculture, Forestry, Fishing and Hunting, and Private Households Employing Staff. *(b)* Subject to sampling variability too high for most practical purposes.

WORKING CONDITIONS

HOURS OF WORK

In the fixation of weekly wage rates, the Commonwealth and New South Wales industrial arbitration authorities prescribe the number of hours constituting a full week's work for the wage rates specified. Special legislation has been enacted in New South Wales from time to time for the direction of industrial tribunals in prescribing hours of work. The history of the reduction of the standard working week to 40 hours is shown on page 515 of the 1974 issue of the New South Wales Year Book.

In 1945, the Commonwealth Court of Conciliation and Arbitration began hearing applications for the introduction of a 40-hour week in Federal awards. Before the Court announced its decision, the New South Wales Parliament passed legislation prescribing a 40-hour week as the standard, for industries within the State jurisdiction, from 1 July 1947. In its judgment, announced in September 1947, the Commonwealth Court granted the reduction to the 40-hour week, for employees under Federal awards, from the first pay-period commencing in January 1948.

The 40-hour week is still regarded as the standard working week for employees under Federal and State awards. However, some awards (e.g. for Crown employees, bank officials, teachers, coal miners) prescribe less than 40 hours per week and, since early 1981, a campaign by trade unions has resulted in the extension of shorter working hours to more industries. Normally, the working day is restricted to 8 hours, but some variation is permitted in special circumstances. Overtime is permitted under prescribed conditions and awards impose limitations on the spread of hours where time is broken.

Overtime worked by employees and time worked outside the spread of hours prescribed in an award must usually be paid for at penalty rates of pay. Overtime rates are generally on the basis of time-and-a-half pay for the first three hours under Federal awards (although generally for the first two hours under State awards) and double-time thereafter, with double-time being paid for Sunday work. Where overtime is worked, an employer is frequently required to pay meal money. Many awards provide that employees may be required to work only "reasonable" overtime.

Statistics on overtime hours worked by employees are compiled from sample surveys conducted in February, May, August and November each year by the ABS. A summary of the results of these surveys for recent periods for New South Wales is shown in the following table. More detailed results and notes regarding scope, coverage, definitions and standard errors are published in the ABS publication *Overtime, Australia* (Catalogue No. 6330.0).

Overtime, N.S.W.

Period (a)	*Average weekly overtime hours per employee in the survey*		*Average weekly overtime hours per employee working overtime*	*Percentage of employees in the survey working overtime (per cent)*
	Manufacturing industries	*All industries*		
1985:				
November	2.56	1.13	6.88	16.43
1986:				
February	2.50	1.14	6.85	16.69
May	2.51	1.16	6.69	17.29
August	2.53	1.12	6.57	17.08
November	2.70	1.19	6.73	17.76
1987:				
February	2.28	1.11	6.69	16.59

(a) Based on the last pay period ending on or before the third Friday of the month shown.

In awards covering industries where work outside the usual day-time hours is essential, provision is made for shift work at rates lower than those applying to overtime. Where three shifts are prescribed, employers are usually required to arrange for them to rotate or alternate regularly. Limitations are imposed on the times and methods of working shifts.

Almost all awards provide for a meal-break without payment during each day or shift. Penalty rates are payable to employees required to work during their meal-break.

HOLIDAYS AND LEAVE

Public Holidays

Certain days are observed as statutory public holidays on which work is suspended as far as practicable. In continuous processes and in transport and other service industries where work must continue on public holidays, employees are given alternative paid holidays and, in most cases, extra wages for the holiday worked.

The days which are observed generally throughout New South Wales as public holidays are: New Year's Day (1 January); Australia Day (the anniversary of the first European settlement in Australia, usually observed on the last Monday in January); Good Friday; Easter Saturday; Easter Monday; Anzac Day (25 April); Queen's Birthday (usually observed on a Monday early in June); Labour Day (first Monday in October); Christmas Day; and Boxing Day (26 December). If the date of a public holiday falls on a Sunday, or if Boxing Day falls on a Monday, the following day is usually observed as the holiday.

In addition to these days, the first Monday in August is a bank holiday, observed by banks and other financial institutions and by State Government authorities; however, State authorities must provide a service to the public on that day. This day is also observed as a holiday under some other awards. Also, various days are prescribed as holidays for persons employed under specific awards.

The Governor may also proclaim special days to be observed as public holidays throughout the State or in any part of the State.

Annual Leave

The history of the granting of paid annual leave to workers in New South Wales is set out on pages 517 and 518 of the 1974 issue of the New South Wales Year Book.

Four weeks' paid annual leave was granted to employees of State governmental authorities in 1964, to employees of local government authorities in 1965, to employees of the Australian Public Service in 1973, and to workers under State awards and agreements and workers not covered by an award or agreement in 1974. Most employees under Federal awards are now entitled to four weeks' paid annual leave. However, some employees under both Federal and State awards receive more than four weeks' paid annual leave. Loadings on payment for annual leave (generally at a rate of 17.5 per cent of annual leave entitlement, with a fixed maximum amount) have been extended to most awards.

Sick Leave

Employees under Federal and State awards are usually entitled to between one and two weeks' sick leave on full ordinary pay in each year of service with an employer, although some awards allow for more than two weeks. In many of the awards, the sick leave entitlement is cumulative during an employee's service with the employer. Since 1968, automatic accumulation of sick leave entitlements for a period of at least three years has been inserted in State awards on the application of industrial unions of employees.

Maternity Leave

For many years, some awards governing employees in New South Wales have contained provisions to provide compulsory unpaid maternity leave for women workers before and after childbirth and to disallow discrimination in employment or dismissal because of pregnancy. Under the maternity leave provisions of the N.S.W. Industrial Arbitration (Amendment) Act 1980, female employees under State awards are entitled to unpaid maternity leave for a period not exceeding 52 weeks (including a period of 6 weeks after a confinement) provided the employee has had at least 12 months continuous employment with the same employer immediately preceding her absence. The Act also provides for certain safeguards in respect to re-employment following the return of the employee from maternity leave.

In 1968, the New South Wales Public Service introduced paid maternity leave. Currently, this consists of a minimum of four weeks (with an entitlement of six weeks) on full-pay prior to the birth and six weeks (on half-pay) after the birth. Unpaid leave is also available to bring the leave period up to a maximum of 12 months.

In 1979, the Full Bench of the Conciliation and Arbitration Commission granted women employed in private industry under Federal awards the right to six weeks compulsory unpaid maternity leave with the option of extending the period of leave taken up to 12 months. Employers must re-engage these employees after completion of the leave.

The Commonwealth Government introduced legislation for Commonwealth public servants in 1973 under the *Maternity Leave (Commonwealth Employees) Act 1973*. Under the Act, an officer is entitled to a maximum of 12 weeks maternity leave on full pay (and 40 weeks leave without pay) provided that, preceding her absence, she has had at least 12 months continuous Commonwealth employment. Those without 12 months service can utilise leave without pay, subject to the standard provisions covering granting of such leave.

Long Service Leave

The history of the granting of long service leave to workers in New South Wales is given on pages 284 and 285 of the 1982 issue of the New South Wales Year Book.

The provisions of the (State) Long Service Leave Act 1955 apply, generally, to: employees who are not entitled to long service leave benefits under a Federal Award; or to employees who do not have more favourable leave benefits under another State Act or under a scheme conducted by an employer. Long service leave provision on a more generous scale than under the Act may be incorporated in awards made by State industrial authorities. In 1985,the Long Service Leave Act 1955 was extensively amended by the Long Service Leave (Amendment) Act 1985. A major amendment was to alter the basis of entitlement from 13 weeks long service leave after 15 years service to 2 months long service leave after 10 years service. Secondly, public holidays occurring during long service leave are now added to the leave rather than being absorbed. The third major amendment allows part-time employees and casuals, who complete the minimum qualifying period of service with the one employer, to become entitled to leave on the same basis as full-time employees and permanents. In addition, the Amendment Act removed all sex-specific terminology from the Long Service Leave Act.

The Australian Conciliation and Arbitration Commission began generally to insert long service leave provisions in Federal awards in 1964 and the provisions now apply to all workers under Federal awards. The leave entitlements which apply in respect of continuous service with the one employer are: 13 weeks long service leave to accrue at the rate of 13 weeks for 20 years service in respect of service before May 1964 (April 1963 in New South Wales) and at the rate of 13 weeks leave for 15 years service in respect of service after that date; leave on a pro rata basis for each subsequent 10 years of service; and leave (or payment in lieu) on a pro rata basis for an employee whose period of service is less than 15 but more than 10 years and whose services are terminated by the employer for any reason (other than serious misconduct) or by the employee because of illness, incapacity or pressing necessity. Employees on long service leave are paid at award rates applicable during the period of leave.

State public servants are entitled to 2 months long service leave after 10 years service and 15 calendar days for each subsequent full year of service. Commonwealth public servants are entitled to 3 months long service leave after 10 years service and 3/10ths of a month for each subsequent full year of service.

In terms of the Building and Construction Industry Long Service Payments Act 1986, long service leave benefits are available for specified workers in the building and construction industry in New South Wales who, because of lack of continuity of employment with the one employer, do not qualify for long service leave under the provisions of the Long Service Leave Act. (Workers employed by government, semi-government and local government authorities are excluded from these benefits.)

Benefits are in the form of payments made from the Building and Construction Industry Long Service Payments Funds, established under the Act and financed by a levy on all new building and construction work in New South Wales. The Fund is administered by the Long Service Payments Corporation, which is managed by the Secretary of the New South Wales Department of Industrial Relations and Employment.

It is the worker's responsibility to register with the Fund to become eligible for payments. Accrual of service towards an entitlement begins from the date of registration. Registered workers become entitled to 13 weeks long service pay after 15 years accrued service in the industry, and pro rata entitlements apply for those leaving the industry after 5 years accrued service (other than as an apprentice) and in respect of incapacity to continue to perform building and construction work after any period of service.

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Labour Statistics, Australia* (Catalogue No. 6101.0); *A Guide to Labour Statistics* (6102.0); *The Labour Force, Australia (Monthly)* (6203.0); *The Labour Force, Australia (Annual)* (6204.0); *Labour Force Experience, Australia* (6206.0); *Labour Mobility, Australia* (6209.0); *Multiple Jobholding, Australia* (6216.0); *Persons Not in the Labour Force, Australia*(6220.0); *Job Search Experience of Unemployed Persons (Excluding Persons who were Stood Down), Australia* (6221.0); *Transition from Education to Work, Australia* (6227.0); *Job Vacancies, Australia* (6231.0); *Information Paper: Questionnaires Used in the Labour Force Survey, Australia* (6232.0); *Retirement and Retirement Intentions, Australia* (6238.0); *Career Paths of Persons with Trade Qualifications, Australia* (6243.0); *Methods of Obtaining Jobs, Australia* (6245.0); *Employment, Underemployment and Unemployment, Australia* (6246.0); *Employed Wage and Salary Earners, Australia* (6248.0); *Information Paper: Comparison of Employment Estimates from the Labour Force Survey and the Survey of Employment and Earnings* (6263.0); *Average Weekly Earnings, States and Australia* (6302.0); *Average Earnings and Hours of Employees, Australia* (6304.0); *Distribution and Composition of Employee Earnings and Hours, Australia* (6306.0); *Weekly Earnings of Employees (Distribution), Australia* (6310.0); *Award Rates of Pay Indexes, Australia* (6312.0); *Incidence of Industrial Awards, Determinations and Collective Agreements, Australia* (6315.0); *Annual and Long-Service Leave, Australia* (6317.0); *Industrial Disputes, Australia (Monthly)* (6321.0); *Industrial Disputes, Australia (Annual)* (6322.0); *Trade Union Statistics, Australia* (6323.0); *Trade Union Members, Australia* (6325.0); *Overtime, Australia* (6330.0); *Employment Benefits, Australia* (6334.0); *Alternative Working Arrangements, Australia* (6341.0); *Industrial Accidents and Diseases, Australia* (6346.0); *Major Labour Costs, Private Sector, Australia* (6348.0).

A.B.S. Publications (N.S.W. Office): *Pocket Year Book of New South Wales* (Catalogue No. 1302.1); *Monthly Summary of Statistics New South Wales*(1305.1); *Information Paper: Sources of Labour Statistics* (6101.1); *The Labour Force (Including Regional Estimates), New South Wales* (6201.1); *Employment Injuries, New South Wales, 1982-83 to 1984-85* (6311.1).

Other Publications: *Workers' Compensation Statistics, New South Wales* and Annual Reports of the (Commonwealth) Department of Employment and Industrial Relations, the (Commonwealth) National Occupational Health and Safety Commission, Commissioner for Commonwealth Employees' Compensation, Australian Conciliation and Arbitration Commission, Joint Committee Administering the Broken Hill Mines (Pneumoconiosis-Tuberculosis) Compensation Scheme, Workers' Compensation (Dust Diseases) Board, State Compensation Board, the (New South Wales) Department of Industrial Relations and Employment, President of the Industrial Commission and the Industrial Registrar.

11

LAND USE

Land in New South Wales is deployed for a variety of uses such as agriculture, mining, housing, transport, forestry, manufacturing and energy production and these and other aspects of land use are described in the relevant chapters of this Year Book.

An account of the land legislation of New South Wales in relation to the progress of settlement, describing the many forms of acquisition and tenure from the Crown, is given in previous editions of the Year Book. The review of land settlement given in this chapter affords a general indication of the manner in which the law relating to the control and disposal of Crown lands is administered and indicates the class of tenures under which land is held.

Land use planning and protection of the State's environment are the principal objectives of the Environmental Planning and Assessment Act 1979. This Act provides for planning objectives and priorities to be established at various levels of government and, within these guidelines, for local government authorities to be responsible for land use planning and the development that occurs in their areas, ensuring that it takes into account economic efficiency, community satisfaction, and environmental quality consequences. Legislation has also been enacted in respect of pollution control aspects of environmental protection.

The responsibility for actively promoting urban and regional development in the State lies mainly with the Department of Industrial Development and Decentralisation, the Department of Environment and Planning and the Department of Housing. The Department of Industrial Development and Decentralisation is responsible for initiating, co-ordinating and implementing the State Government's economic development and policies in the Macarthur Growth Centre in the Sydney Region and in the eleven non-metropolitan regions of the State and monitors the two growth centre corporations of the State — the Bathurst-Orange and Albury-Wodonga Development Corporations. The Department of Environment and Planning is involved in the production of strategies for the planning and development of the Sydney region in addition to the preparation of Regional Environment Plans for areas in the remainder of the State. One of the responsibilities of the Department of Housing is to acquire and develop land in anticipation of demand to ensure a continuity of supply of moderately priced allotments. It also works with private industry and other arms of government to promote orderly economic development.

Responsibility for most pollution control aspects of environmental protection in New South Wales rests with the State Government, which has enacted legislation to control the operations of government and private enterprises that may have a deleterious effect on the environment. Commonwealth legislation is responsible for pollution control in respect of the operations of its own departments and authorities within the State. The Commonwealth also undertakes research and investigations into environmental problems and is responsible for the development and co-ordination of policies and the administration of national programs relating to the protection of the environment. In addition, various voluntary organisations have been established to encourage public awareness of environmental protection and planning.

Manuscript of this chapter prepared May 1987.

LAND SETTLEMENT

LAND ADMINISTRATION

On the establishment of responsible government in 1856, control of the Crown lands was conferred on the New South Wales Parliament. The principal enactments now governing the alienation, occupation and management of Crown lands are the Crown Lands Consolidation Act 1913, the Closer Settlement Acts, the Returned Soldiers' Settlement Acts, the Irrigation Acts and the Western Lands Act.

The principal responsibility for the administration of land resources in the State lies with the Department of Lands. The Department's functions include land management and administration, land information, land survey, land registration, and mapping and surveying.

Land Divisions

For administrative purposes, the State is divided into three territorial land divisions — the Eastern, Central and Western Divisions — bounded by lines running approximately north and south. The Eastern Division, which comprises 24,549,010 hectares, covers the coastal and tableland areas and about one-third of the slope areas. The Central Division (23,089,682 hectares) embraces the remainder of the slope areas, and most of the northern and southern plains areas. The Western Division (32,504,087 hectares) almost coincides with the western plains area. The total area of New South Wales including Lord Howe Island is 80,142,779 hectares, but the land area (excluding the surface covered by rivers, lakes, etc.) is 78,942,406 hectares.

The administration of Crown Lands within the Eastern and Central Divisions is conducted by the Crown Lands Office. The lands of the Western Division are administered separately by the Western Lands Commission. The Catchment Areas Protection Board has exercised oversight over the disposal of lands within the principal catchment areas of the State.

Land Boards

The Eastern and Central Divisions are divided into 87 Land Districts, and these Districts are grouped into 13 Land Board Districts. There are also special Land Board Districts for the Yanco, Mirrool, Coomealla, Coleambally and Tullakool Irrigation Areas. In each Land Board District is a Local Land Board which comprises an official chairman (usually an officer of the Department of Lands who sits on a number of Boards) and two local members. The Boards, which sit as open courts and follow procedure similar to that of the Local Courts, deal with applications under the Crown Lands and other Acts and make reports and recommendations on matters referred to them by the Minister.

The Western Division is divided into 11 administrative districts, which coincide with Pastures Protection Districts. In each district, there is a Local Land Board, which comprises an Assistant Western Lands Commissioner and two local members.

Land Titles Office

The Land Titles Office (prior to 1985 known as the Registrar General's Office) administers the State's systems of registration of land titles and plans of subdivisions (including preparation and issue of certificates of title and conversion of land held under Old System Title to Torrens Title), Bills of Sale, and mortgages of stock and liens on wool and crops. The Torrens Title system offers greater certainty of title by giving a State guarantee on registration instead of transfer of property by deeds.

Under the Conveyancing (Passing of Risk) Amendment Act 1986, new legislation applying to all property transactions came into effect on 1 May 1986. The Act expands the duties of vendors to include disclosing to the purchaser extensive information about the land prior to contracts being signed by the parties. The provision of information by the vendor should ensure that the purchaser will be in a position to exchange contracts more quickly than previously, with the additional benefit of limiting the incidence of gazumping. Gazumping is a practice by which the seller aims to get a higher price, or a purchaser a lower one, after the bargain has been made but before there is a binding contract.

Board of Surveyors

The Board of Surveyors comprises the Surveyor-General, who is an ex-officio member and president of the Board, and six members appointed by the Governor. The Board registers all practising land surveyors and controls their standards of performance and duties throughout New South Wales.

Lord Howe Island Board

The Lord Howe Island Board is described in Chapter 1, "Natural Environment".

Central Mapping Authority

The Central Mapping Authority is responsible for the production of topographic and cadastral maps of New South Wales, geodetic and control surveys, the supply of aerial photographic coverage, digital mapping, project cartography, map printing and the sale of maps. The Authority has produced 1,018 topographic and 3,440 cadastral maps to provide complete topo-cadastral map coverage of New South Wales at scales of 1:25,000 (Eastern seaboard and ranges), 1:50,000 (Central) and 1:100,000 (Western Division). Over 2,000 orthophoto maps at scales of 1:4,000 or 1:2,000 provide urban mapping coverage for towns of population greater than 2,000 people. A further 1,020 property maps have been produced showing rural property boundaries and ownership.

State Land Information System

The State Land Information Council (SLIC) was established in 1984 to effect the planning, designing, implementation and management of a State-wide land information system. The SLIC has a corporate planning and implementation management role with the broad aims of setting standards for the collection and storage of land-related data; eliminating the duplication in recording of data; facilitating public access to the data; improving government revenue by access to better land records; and to provide greater administrative efficiency and better service to the State and the public.

Valuer-General's Department

The functions of the Valuer-General include the production of valuations for use by local government, water boards and the Land Tax Commissioner, valuation of interests in land for stamp duty, and the valuation of claims for compensation where land is acquired for public purposes. Further details on valuation of property are given in Chapter 23, "Public Finance" in the subdivision "Valuation and Rating of Property in Local Areas".

The data contained in the following table have been determined following a study of prices paid for real estate throughout New South Wales. Details of completed property transactions are notified to the Valuer-General's Department by a "notice of sale" completed by the purchaser. Values listed are not a mathematical average of the property sales but are estimates made by the Department's valuers of the fair market value at 30 June for a typical property.

Index of Property Values, New South Wales
Base of each Index 1976=100 *(a)*
(*Source*: Valuer-General's Department)

	Index at 30 June								*Average value at 30 June 1986*
Type of property	*1979*	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*	*$*
Residential — standard serviced allotments *(b)* —									
Inner Sydney suburbs	167	250	328	364	346	406	447	469	107,794
Middle-distance Sydney suburbs	164	241	316	316	307	346	375	406	93,269
Outer Sydney suburbs	143	200	265	269	254	284	296	309	43,056
Newcastle urban area	129	147	198	317	308	315	328	332	27,545
Wollongong urban area	147	184	257	290	256	269	290	314	33,308
Coastal towns	127	145	225	308	297	325	348	347	26,000
Major inland cities	124	133	162	190	189	227	249	275	20,132
Retail shop site (Base: 1978=100) —									
Sydney, Newcastle and Wollongong	111	138	165	182	199	220	248	281	63,571
Country towns and cities	116	133	165	179	180	203	238	243	17,621
Industrial site, 2,000 sq metres —									
Sydney, Newcastle and Wollongong	107	147	195	243	237	289	299	325	238,667
Country towns and cities	127	142	179	237	232	257	279	289	35,233
Western grazing properties	127	149	192	233	254	333	392	392	417,778
Wheat and sheep properties	142	167	224	305	324	329	355	310	422,515
Grazing properties	125	149	192	242	250	278	307	308	417,218

(a) Unless otherwise indicated. *(b)* Vacant residential land for the Sydney Metropolitan Area has been grouped in three categories, namely inner suburbs (0-6 kilometres), middle suburbs (6-25 kilometres), and outer suburbs (over 25 kilometres).

Real Estate Valuers Registration Board

The Real Estate Valuers Registration Board, which is constituted under the Valuers Registration Act 1975, comprises the Valuer-General, who is chairman and four members (three registered valuers and a legal representative) who are appointed for a five year term by the Governor. The Board is responsible for the registration of all real estate valuers in New South Wales, regulates the qualifications for registration and implements other provisions of the Act.

Land and Environment Court

The Land and Environment Court makes orders on appeals, references, and other matters under the Crown Lands Consolidation Act 1913, the Closer Settlement Acts, the Western Lands Act 1901, and other land tenure, valuation, rating and compensation matters. Further particulars regarding the Court are given in Chapter 9, "Law, Order and Public Safety".

LAND TENURE

From the early days of settlement up to 1884, lands were alienated by grants from the Governor. Sales from the Crown commenced in 1825, and leasehold tenures were given to "squatters" after 1832. Conditional purchase under the "free selection before survey" system was introduced in 1861, to open to land-seekers a means of acquiring land already held under lease, and the system continued until 1884. From 1895, the disposal of Crown land was governed by the principles of pre-classification of land, survey before selection, each holding of sufficient size to provide a "living area", one man one selection, and *bona fide* selection. Sales at or after auction have decreased in importance and are now of minor significance. Closer settlement, described later in this subsection, was an important factor in providing for new settlers, until suspended upon the introduction of rural reconstruction schemes in 1971.

In the disposal of Crown lands, government policy has fluctuated between purchase (ultimately freehold) tenure and leasehold tenure. In recent years, the State Government has taken steps to reduce the number and variety of Crown land titles. At 30 June 1986, 30,632,458 hectares of the State had been alienated from the Crown, 1,922,574 hectares were in the course of alienation under the instalment system, 7,969,368 hectares were held in perpetual leases, 30,416,632 hectares were held in Western land leases and 1,108,193 hectares were held in other than perpetual leases. A description of the various types of tenure and the rights and obligations of their holders, are described on page 816 of the Year Book No. 49.

Alienation and Tenure of Crown Lands

The area of land (in thousand hectares) alienated from the Crown in New South Wales at the end of each decennial period since 1861 is as follows.

At 31 December		*At 30 June*		*At 30 June*	
1861	2,892	*1911*	14,663	*1951*	20,690
1871	3,493	*1921*	16,058	*1961*	22,568
1881	7,938	*1931*	17,837	*1971*	25,089
1891	9,584	*1941*	20,349	*1981*	27,189
1901	10,687				

An analysis of alienated land in recent years is shown in the following table.

Area of Alienated Lands, N.S.W.
(*Source*: Department of Lands)
('000 hectares, at 30 June)

Area of land	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Alienated	30,036	30,963	31,284	31,634	31,675	33,564
Resumed or reverted to Crown	2,847	2,861	2,866	2,900	2,908	2,932
Remaining alienated	27,189	28,101	28,417	28,734	28,767	30,632

Alienated lands resumed or reverted to the Crown at 30 June 1986 are detailed in the following table.

	Area (hectares)
Under Closer Settlement Acts and for Crown Lands Office purposes	2,369,178
For Western Lands Commission purposes	5,263
For Department of Water Resources purposes	383,194
For afforestation purposes	113,189
For National Park purposes	61,465
Total alienated lands resumed or reverted to the Crown	**2,932,289**

Land Tenure in the Western Division

Almost all the lands in the Western Division are held under lease. Western Division tenures at 30 June 1986 were as follows.

	Area (hectares)
Permissive Occupancies	105,210
Western Lands Leases	30,416,632
Conditional Leases	65,249
Preferential Occupation Licences	8,132
Occupation Licences	2,415
Homestead Grants	436
Road Permits	505
Homestead Selection	405
Closer Settlement Leases	154

Aboriginal Lands

Aboriginal Land Rights Act 1983

Under the (State) Aboriginal Land Rights Act 1983, Local Aboriginal Land Councils have been established throughout New South Wales to hold freehold title to Aboriginal land within their geographical area. Previously the Aboriginal Lands Trust, which was established in 1973 and abolished in 1984, assumed corporate ownership of land on behalf of Aboriginal people of New South Wales. The Aboriginal Land Rights Act provides for the transfer to the appropriate Local Aboriginal Land Council of all titles to land held by the former Aboriginal Lands Trust (about 4,400 hectares in 1982), for Aboriginal land claims to be made in respect of certain Crown land, for the provision of funds to enable Aboriginal communities to acquire and develop land, and for the Land and Environment Court to settle disputes arising out of this legislation.

Aboriginal Land Councils. The Act establishes a three tiered structure to facilitate administration of Aboriginal Land Councils whose major purpose is to hold the freehold title to Aboriginal lands. Each Local Council comprises all adult Aboriginal people living within a particular geographical area, and is responsible for the management, use, control and development of lands and community enterprises, including negotiations in respect of mining. The second tier comprises *Regional Aboriginal Land Councils* composed of representatives of each Local Council within a region. Their major functions are to give financial and other assistance to Local Councils for community development, housing and other commercial enterprises, as well as assisting Local Councils with preparation and submission of land claims. The third tier is the *New South Wales Aboriginal Land Council* composed of representatives (elected annually) of each Regional Council. Its major function is the allocation of funds to Local and Regional Councils for acquisition of lands and administration costs. The State Council also oversees such matters as land claims, the management of land and mining royalties.

Land Rights. Under the Act, an Aboriginal land claim may only be granted if the land claimed is Crown land which is not in lawful use or occupation, and not needed nor likely to be needed for essential public or residential purposes. There is no right to claim private lands. Aboriginal Land Councils have the right to purchase private lands on the open market using funds provided by the Act. Aboriginal Land Councils receive freehold title to all lands transferred to them, but this land may not be subsequently sold, mortgaged, or transferred, although it may be leased. Title to Aboriginal lands includes the right to all minerals except gold, silver, coal and petroleum. The Aboriginal Land Council has the right to refuse permission for exploration and mining on its land (except in relation to gold, silver, coal and petroleum), and that decision is final. Where approval is given for mining, the parties will enter into negotiations for payment of royalties.

New South Wales Government Funding. The Aboriginal Land Rights Act provides for annual funding from the Consolidated Fund up to and including 1998. The amount payable for each year is 7.5 per cent of those land tax collections which relate to the previous year. Payments in the first three years, 1983-84, 1984-85 and 1985-86 were $13.7m, $17.3m and $17.4m respectively. Of the moneys received as a portion of land tax collections, regulations under the Act require one half to be invested by the N.S.W. Council and this amount together with the interest received, shall not be disbursed. At 31 December 1986 the amount required to be invested in terms of the regulations, inclusive of interest, was $24.2m.

The Role of the Land and Environment Court. The jurisdiction of the Land and Environment Court has been extended to enable it to determine all disputes arising under the legislation. The Act also contains a provision for the appointment of Aboriginal assessors to assist the judge in certain circumstances.

Land in Irrigation Areas

Settlers within irrigation areas generally hold their land under freehold title, under tenures leading to alienation, or under leases convertible to alienable tenures. A residence condition frequently applies under Crown tenures and a requirement of improvements and satisfactory development of the land is usual. The principal tenures of irrigable land in irrigation areas carry water rights varying according to the type and area of the holding.

Reserves

Throughout the State, considerable tracts of land have been reserved from sale (some from lease, also) in the public interest for various purposes, the principal being travelling stock reserves, temporary commons, mining, forestry, and recreation reserves and parks. Some lands are reserved pending survey and classification. The reserves are subject to review periodically, and are revocable when their retention is found unnecessary.

Closer Settlement

The circumstances leading to the closer settlement scheme instituted in 1905 are described on page 680 of the Year Book No. 36. The manner of provision and disposal of land under these schemes is described on page 832 of Year Book No. 49.

The Closer Settlement Acts provide that private land and long-term leases may be acquired by the Crown in certain circumstances, by direct purchase or resumption, to provide for new holdings and for additions to existing holdings. Acquisition must be recommended by Closer Settlement Advisory Boards and approved by Parliament. The Acts also provide that persons with prescribed qualifications may enter into agreements with private land-owners to buy private lands, and the Crown may acquire the land from the vendors and dispose of it to settlers by perpetual lease.

Closer settlement operations have been concerned largely with the settlement of ex-servicemen. Between 1945 and 1960, all land acquired for closer settlement was allotted to ex-servicemen of the 1939-1945 War and the Korea and Malaya operations. For a detailed description of the schemes for the settlement of ex-servicemen, see page 744 of Year Book No. 61.

A new closer settlement scheme was introduced by the State Government in 1960, in terms of the Closer Settlement (Amendment) Act 1960, for land-seekers generally. The provisions of the new scheme were similar to those of the War Service (1939-1945) Land Settlement Scheme in respect of the methods of acquisition, sub-division, and allocation of land. However, advances were not made to assist incoming settlers, and the annual lease rental (at 5 per cent of the capital value of the farm) and the rate of interest on improvement debts incurred (at 4 per cent per annum) were higher than those charged under the War Service Scheme. Further details of this Scheme are given on page 936 of the Year Book No. 63.

The Crown Lands and Closer Settlement (Amendment) Act 1968, made a significant change to the General Closer Settlement Scheme. Under the main provisions of this Act, applicants could apply for a Settlement Purchase title instead of a Closer Settlement Lease, and all holders of Closer Settlement Leases, Settlement Purchase Leases, and Group Purchase Leases (all formal leases in perpetuity without conversion rights) could apply for conversion of their leases to Settlement Purchase, and thereby obtain freehold title.

The General Closer Settlement Scheme was suspended in 1971, and was replaced by the Marginal Dairy Farms and Rural Reconstruction Schemes which were later replaced by the Rural Adjustment Scheme in 1977. This Scheme is described in Chapter 15, "Agriculture" in the division "Agricultural Land Use and Selected Inputs".

LAND USE PLANNING AND PROTECTION OF THE ENVIRONMENT

Authorities and legislation have been established in New South Wales to facilitate a process by which land use planning and development decision making, at all levels of government, can be undertaken. The Environmental Planning and Assessment Act 1979, through the operations of the Department of Environment and Planning, provides for planning objectives and priorities to be established at various levels of government and within these guidelines for local government authorities to be responsible for land use planning and the development that occurs in their areas. Land use planning and proposed developments must take into account economic efficiency, community satisfaction, and environmental quality consequences and encourage an optimal mix of these factors.

Although the Environment Planning and Assessment Act is the principal legislation controlling developments and planning in the State, a few major projects have been approved by special acts of Parliament and therefore normal environment approval or planning regulations do not necessarily apply to these developments. The projects include the redevelopment of the former General Motors-Holden site at Pagewood (Botany and Randwick Sites Development Act 1982), the development of a football stadium at Parramatta Park (Cumberland Oval Act 1981) the development of tourist facilities at Leura in the Blue Mountains (Blue Mountains Land Development (Special Provisions) Act 1985), the development of Darling Harbour, which is described later in this chapter (Darling Harbour Authority Act 1984) and the redevelopment of the Sydney Sports Ground (Sydney Cricket and Sports Ground (Amendment) Act 1985).

Pollution control is primarily the responsibility of the State Government, whose legislation controls the operations of government and private enterprises that may have a deleterious effect on the environment. The Commonwealth Government is responsible for pollution control in respect of the operations of its own departments and authorities within the State.

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

In New South Wales, the legislation which provides the framework for integrating land use planning with environmental protection is the Environmental Planning and Assessment Act 1979. This Act provides for the assessment of environmental impacts, establishes a basis for decision making on land use, and provides processes whereby decisions can be made, implemented and monitored. Under the Act, the environment is defined as including all aspects of the surroundings of man, whether affecting him as an individual or in his social grouping.

The objects of the Act include:

(a) to encourage the proper management, development, and conservation of natural and man-made resources (including agricultural land, forests, minerals, water and cities) for the purpose of promoting the social and economic welfare of the community and a better environment;

(b) to share the responsibility for environmental planning between the State Government and local government; and

(c) to provide an opportunity for public participation in environmental planning and assessment.

The Act provides for the making of environmental plans and policies at State, regional and local government levels, and a system of evaluation and consent for development which complies with the land use specified in those plans or policies. Provision is made for public involvement in the formulation of these plans and policies and in the process of evaluating development proposals before consent is given.

Environmental Planning Instruments

The Minister for Planning and Environment or the Director of Environment and Planning can initiate the preparation of a *State Environmental Planning Policy* or a *Regional Environmental Plan.* State Policies generally relate to those matters which are of significance for environmental planning at the State level. Regional Plans, on the other hand, relate to defined regions, the coverage of which may vary depending upon the issue being covered by the Plan. In preparing either of these types of instruments, public participation is generally involved. However, the extent of such action is at the discretion of the Minister.

At the local government level each local council has prime responsibility for making *local environmental plans.* The Act provides the mechanism to ensure that there is consistency between these local environmental plans and regional environmental plans and State environmental planning policies. Local environmental plans for each area will eventually take over from the previous town and country planning schemes and interim development orders, and these plans are being developed by each council in consultation with its electorate and public authorities. Draft local environmental plans, and any environmental study leading to the plan, are exhibited and community submissions may be made before the final plan is prepared. A plan may make provision for the protection or improvement of the environment, including control over the demolition of buildings and the protection of trees or vegetation, as well as the reserving of land for open space or for public places. A plan, once approved by the Minister, is used by the local council as the basis of decisions as to whether or not a development proposal in the area should proceed.

Development Control

In terms of the Environmental Planning and Assessment Act, development is regulated generally by local government councils under a system called "development control". As defined in the Act "development of land" includes "the erection of a building on that land; the carrying out of a work in, on, over, or under that land; the use of that land or of a building or work on that land; and the subdivision of that land".

When permission is sought to carry out development, the controls and procedures that apply will depend on the way in which the development is categorised in the local environmental plan. Some development is permitted by a local plan without development consent. However, most other development requires local government consent. Some development applications are required to be advertised by the Council, and adjoining residents notified, so that citizens may exercise their right to make submissions to the council before a determination is made on the proposal. The Minister for Planning and Environment may direct that development applications of significance to regional or state environmental planning are referred for ministerial decision. In addition, developments which are prohibited under existing planning instruments are submitted to the Minister. Only a few development applications are in practice determined by the Minister. Projects which have been submitted are those relating to canal estate development, the Homebush Bay Project, the redevelopment of the Anthony Hordern site in Sydney and the operation of the Paddington Markets. In these cases the Minister may arrange for a Commissioner to hold a "Commission of Inquiry" (which is open to the public) and a hearing can be requested. A report on the development is then made to the Minister, who makes the final decision whether the proposal is to be approved by the issuing of a development consent, which includes conditions involving measures to mitigate environmental impact. There is no right of appeal against development decisions taken by the Minister.

The Act also provides for a more detailed examination of the impact of development which is "designated", or which constitutes an "activity". Further details of the requirements for obtaining approval for these forms of development are provided in the following section on "Environmental Assessment".

The Environmental Planning and Assessment Act specifies those matters which local councils must consider when determining whether a development application should be approved or refused. The considerations include:

(a) the provisions of any existing or draft local or regional plan and State policy;
(b) the means that may be employed to protect the environment or to mitigate any harmful environmental effects;
(c) the effect on the scenic quality of the landscape;
(d) the social and economic effects on the locality;
(e) the character, location, siting, size, height, and appearance of the development;
(f) the suitability of the development to the site in view of possible bushfires, floods or other risks which could possibly occur there;
(g) the provision of vehicle access, parking and loading within the development;
(h) the amount of traffic likely to be generated and its effect on the road network;
(i) whether utility services are adequate for that development;
(j) the provision of landscaping and preservation of trees and vegetation;
(k) the existing and likely future amenity of the neighbourhood; and
(l) the likelihood of soil erosion.

Applicants must provide such information with their development applications to demonstrate that consideration has been given to the likely impact of the development on the environment.

An applicant who is dissatisfied with a Council's decision on the application may lodge an appeal with the Land and Environment Court. Application to the Land and Environment Court may also be made by any person for an order to remedy or restrain a breach of the Planning and Environment Act (e.g. if development is carried out without consent or is inconsistent with the terms of the consent given).

Environmental Assessment

The Act provides for the "designating" of certain types of development which may have a significant environmental impact, e.g. the construction of new (or alterations to old) establishments involved with abattoirs, heliports, canning and bottling, cattle feed lots, cement, concrete and ceramics, chemicals, mining, marinas, piggeries, metallurgy, petroleum products works, paper, pulp, plastic or rubber manufacture, and woodmilling. These forms of development are considered likely to have an adverse effect on the environment (unless there are adequate environmental safeguards). Therefore for "designated" development it is mandatory for an Environmental Impact Statement to be prepared and for the proposal to be advertised for public comment. An Environmental Impact Statement is required to outline the objectives of the proposal, the justification of the proposed activity in terms of environmental, economic and social considerations, any feasible alternatives to carrying out the proposed activity, the reason for the choice of the preferred alternative, and details of the environmental safeguards proposed.

Provision is also made in the Act for public authorities, such as government departments and local councils, to consider the environmental effect of any "activity" or "project" they propose to undertake and for which development consent is not required. Where such an activity is likely to have a significant effect, an Environmental Impact Statement must be prepared and exhibited before a decision to proceed is made.

The factors which public authorities must consider when assessing the environmental impact of an activity include:

(a) any environmental impact on a community;
(b) any environmental impact on the ecosystem of the locality;
(c) the possible diminution of the aesthetic, recreational, scientific, or other environmental quality or value of the locality;
(d) the endangering of any species of fauna or flora;
(e) any impact on cultural or natural heritage;
(f) any long-term effects on the environment;
(g) any pollution of the environment;
(h) any environmental problems associated with the disposal of waste;
(i) any increased demands on resources, natural or otherwise, which are, or are likely to become, in short supply; and
(j) any cumulative environmental effect with other existing or likely future activities.

Public comments on Environmental Impact Statements may be submitted during the exhibition period and must be considered by the public authority or a council in its decision making. Any person who has made a written objection to a designated development application and is dissatisfied with the decision can lodge an appeal to the Land and Environment Court within 28 days of the announcement of approval of the development.

Where "activities" not requiring development consent are seen to be environmentally controversial, the Minister may direct that an independent inquiry be held by the Commissioners of Inquiry, or the Director of the Department may direct that an independent examination be conducted by the Department. In this case the determining authority may not make a decision until it has given consideration to the results of the inquiry and any comments made by the Minister for Planning and Environment.

STATE AUTHORITIES CONCERNED WITH LAND USE PLANNING AND DEVELOPMENT CONTROL

Department of Environment and Planning

The Department of Environment and Planning is responsible for the co-ordination and promotion of land use and resource management in New South Wales. It was established in 1980 when the functions of the former Planning and Environment Commission were transferred to it. The Environmental Planning and Assessment Act 1979 gives the Department, through its Director, the main responsibility for ensuring that planning decisions reflect the general aim that all land use should be based on the wise management of the environment and the social and economic needs of the community. To achieve this, the Director advises the Minister on policies that need to be established at the State and regional level relating to the distribution of resources and the provision of services.

The Environmental Planning and Assessment Act provides for two *co-ordination and advisory committees* and enables others to be formed as the need arises. The Director of the Department of Environment and Planning is the Chairman of the two Committees which are:

(a) *The Advisory Co-ordinating Committee,* comprising representatives from Government bodies concerned with such matters as resource management, transport, energy and public services, advises the Minister for Planning and Environment on the means of ensuring effective co-ordination of public authority programs.

(b) *The Local Government Liaison Committee,* the members of which include persons from the Local Government and Shires Associations, Local Government Planners' Association, Town Clerks' Society, State Pollution Control Commission and the Department of Local Government. The Committee advises on the procedures for local councils in carrying out their responsibilities relating to environmental planning.

Other committees established include the Urban Development Committee (which is described later in this chapter), the Western Sydney Planning and Development Committee, the Bondi Beach Planning Advisory Committee, the Hunter Planning Committee and the Kosciusko Regional Planning Committee.

There are two planning divisions within the Department — "Planning Division North" and "Planning Division South" — containing nine regional planning teams, six of which are located at regional offices and the remaining three at the Head Office in Sydney. In its task of drawing up regional environmental plans, the Department is required to prepare an environmental study and place this, together with aims of the draft plan, on public exhibition. Submissions from the public on the study and aims are then considered by the Director before deciding the aims and objectives and preparing a draft regional environmental plan in consultation with councils and relevant government departments. The draft plan is exhibited and public submissions on the draft plan are considered by the Department. The Director may arrange for a Commission of Inquiry before the final plan is prepared. Regional Environmental Plans require ministerial approval before gaining statutory status by being published in the New South Wales Government Gazette.

By early 1987, the Department had prepared and arranged for gazettal of nineteen State Environmental Planning Policies (SEPPs). These policies relate mainly to limiting development standards enforced by local councils in order to streamline planning processes, reduce delays, extend opportunities for medium density dwellings, break down unreasonably rigid interpretations of what can be located in residential areas, and to provide environmental protection. A list of all SEPPs is given below. Each policy specifies the actual part of the state to which it applies because not all policies apply to the whole of the State.

No. 1 — Development Standards (Gazetted 17 October 1980)
Consent authorities may, in certain circumstances, grant consent to development that does not strictly comply with development standards contained in other environmental planning instruments.

No. 2 — Minimum Standards for Residential Flat Development (Gazetted 13 February 1981)
This Policy was repealed by SEPP No. 20.

No. 3 — Castlereagh Liquid Waste Disposal Depot (Gazetted 19 June 1981)
This policy is to allow for the continuation and expansion of the Castlereagh Liquid Waste Disposal Depot to provide for part of the State's needs pending the selection of a new site and the construction on that site of an industrial liquid waste treatment plant.

No. 4 — Development Without Consent (Gazetted 4 December 1981)
The need to make a development application in regard to certain specified minor types of development is removed.

No. 5 — Housing for Aged or Disabled Persons (Gazetted 19 February 1982)
The policy enables the development of housing for aged or disabled persons regardless of any other environmental planning instrument.

No. 6 — Number of Storeys in a Building (Gazetted 10 December 1982)
This is a policy for determining the heights of a building where height is controlled by reference to the number of storeys.

No. 7 — Port Kembla Coal Loader (Gazetted 10 December 1982)
The aim of this policy is to increase the volume of coal which may be hauled by road to the Stage 1 coal loader at Port Kembla.

No. 8 — Surplus Public Lands (Gazetted 8 April 1983)
Permits the Government to declare State owned land excepting that land included in Schedule 1 of the policy (e.g. open space, recreation, National Parks, historic sites, wildlife refuge etc.). On being declared surplus development may be carried out on that land for a public purpose or for housing, commercial premises or industry or a combination of those purposes.

No. 9 — Group Homes (Gazetted 7 October 1983)
Enables the development of group homes for the purpose of accommodating economically or socially disadvantaged persons on land where dwellings are allowed.

No. 10 — Strata Subdivision of Buildings Used For Residential Purposes (Gazetted July 1984)
Requires Councils to assess the stock of accommodation for people on low or moderate incomes before approving strata subdivision of residential buildings.

No. 11 — Traffic Generating Developments (Gazetted 9 August 1985)
The aim of this policy is to ensure that the Traffic Authority is consulted relative to certain traffic generating developments.

No. 12 — Public Housing (Dwelling Houses) (Gazetted 13 December 1985)
Enables the Department of Housing to erect dwelling houses in residential zones without the necessity for consent to be obtained.

No. 13 — Sydney Heliport (Gazetted 10 July 1985)
This policy enables development to be carried out for the purposes of a heliport on the land to which the Policy applies, without the need to obtain development consent.

No. 14 — Coastal Wetlands (Gazetted 12 December 1985)
The aim of this policy is to ensure that the coastal wetlands are preserved and protected in the environmental and economic interests of the State.

No. 15 — Draft — Dwelling Houses in Rural Areas (Multiple Occupancy)
The aim of the policy is to enable people to erect multiple dwellings on a single allotment of land, to be occupied as their principal place of residence, and to develop the land for commercial purposes, in an economic, socially and environmentally acceptable manner.

No. 16 — Tertiary Institutions (Gazetted 20 December 1985)
Permits any kind of tertiary institution on land zoned for a specific kind of tertiary institution.

No. 17 — Not allocated.

No. 18 — Draft — Public Housing (Exhibited but not yet Gazetted)
The policy is intended to permit the Department of Housing and those in joint venture with the Department, to construct accommodation for public housing. Further action on the draft policy is under review.

No. 19 — Bushland in Urban Areas (Gazetted 24 October 1986)
The aim of the policy is to protect and preserve bushland in urban areas on land zoned or reserved for open space.

No. 20 — Minimum Standards for Residential Flat Development (Gazetted 12 December 1986).
This policy controls the minimum requirements for setback, landscape areas and density for new residential flat buildings.

No. 21 — Movable Dwellings (Gazetted 28 November 1986)
The policy ensures there are no inappropriate planning restrictions on long term occupancy and movable dwellings in caravan parks and camping grounds.

No. 22 — Shops and Commercial Premises (Gazetted 9 January 1987)
The policy allows, in business zones with the consent of council, a change of use from a shop to another kind of shop or commercial premises or, alternatively, commercial premises to a shop or another kind of commercial premises, where the new use is prohibited under an environmental planning instrument.

Regional Environmental Plans gazetted for the Sydney Region are:

Nos. 1 and 2 Dual Occupancy;
No. 3 Kurnell Peninsula;
No. 4 Homebush Bay;
No. 5 Chatswood Town Centre;
No. 6 Gosford Coastal Areas;
No. 7 Multi-Unit Housing, surplus Government Sites;
No. 8 Central Coast Plateau Areas;
No. 9 Extractive Industries;
No. 10 Blue Mountains Regional Open Space; and
No. 11 Penrith Lakes Scheme.

Regional Environmental Plans gazetted for other regions are:

Hunter Regional Environmental Plan No. 1 (Further details are given on pages 270-271 of the 1986 issue of the New South Wales Year Book.)
Lower South Coast Regional Environmental Plan No. 1.;
Kosciusko Regional Environmental Plan (Snowy River).; and Illawarra Regional Environmental Plan No. 1.

Draft Regional Environmental Plans have been prepared for:

Botany Bay;
Hoxton Park-Parramatta-Baulkham Hills public transport corridor,
Rouse Hill Development Area;
Dual Occupancy;
Jamberoo Valley; and
Murray River Riparian Lands.

Information on earlier regional planning proposals, such as the non-statutory Sydney Region Outline Plan which was prepared by the Department's predecessors but which are now administered by the Department, are described in the 1986 issue of the New South Wales Year Book.

Land and Environment Court

The Land and Environment Court Act 1979 established the Land and Environment Court. The Court hears appeals under the Environmental Planning and Assessment Act, the Local Government Act, the Heritage Act, the Aboriginal Land Rights Act, and other acts relating to land tenure, valuation, compensation and pollution control. Further details on the Land and Environment Court are given in Chapter 9 "Law, Order and Public Safety".

STATE AUTHORITIES CONCERNED WITH PROTECTION OF THE ENVIRONMENT

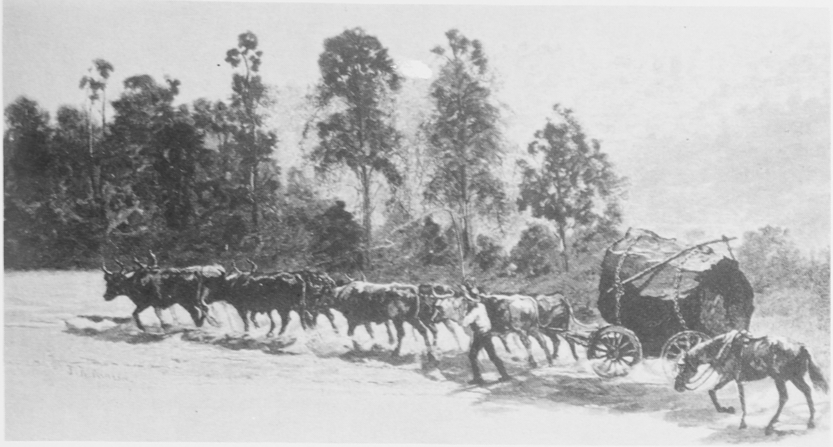
State Pollution Control Commission

The State Pollution Control Commission is constituted as a corporation under the State Pollution Control Commission Act 1970. The Commission consists of the Director of the Commission, the only full-time member, and eleven part-time members who represent local government associations, secondary industry, commerce, primary industry, recreational activities and conservation interests.

The Commission is responsible for supervising, controlling, and advising on the prevention, control, abatement, and mitigation of pollution, the control and regulation of the disposal of waste, and the protection of the environment from defacement, defilement or deterioration. The Commission may order any public authority to do anything within the power of that authority which will contribute to pollution control, waste disposal or environmental protection.

The Commission supervises the implementation of pollution control standards; formulates and promotes plans for practical programs of pollution control; advises the Minister on the effectiveness of existing measures and the need for new or modified legislation; carries out, commissions, and co-ordinates surveys, investigations, and research, conducts enquiries and investigations, and administers the pollution control legislation of the State. In addition, the Commission has developed an educational, promotional and publications program to inform the community on pollution control and other environmental issues.

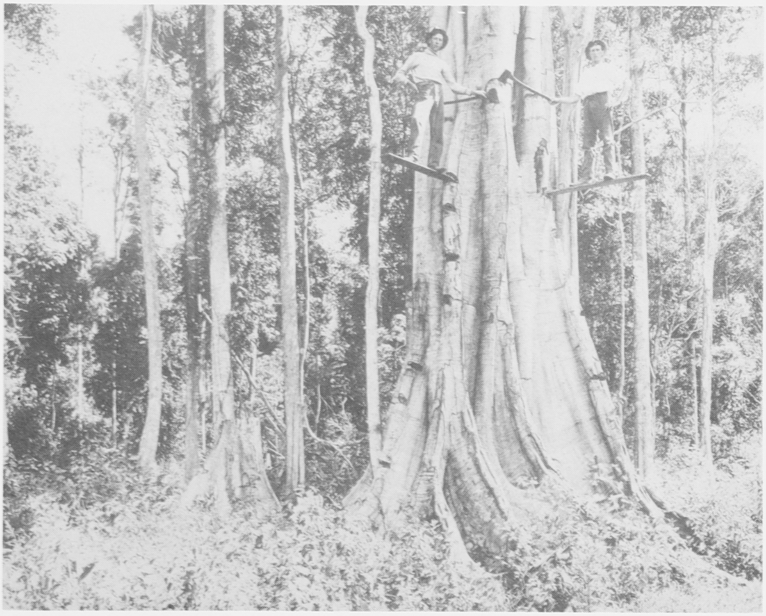
Premises being used for purposes that could contribute to pollution have to be licensed under the State Pollution Control Commission Act 1970. The specific purposes are listed in schedules to the Clean Air, Clean Waters and Noise Control Acts. The premises are known as "scheduled premises" and include industrial premises with pollution potential, such as oil refineries, primary metallurgical works, coal industry and coke works, cement, ceramic and concrete works, and some bulk cargo handling facilities. The occupiers of scheduled premises also need approval from the Commission to undertake certain works requiring pollution control measures and works associated with the treatment or storage of pollutants. The licences are issued with conditions regarding the discharge, including the type and



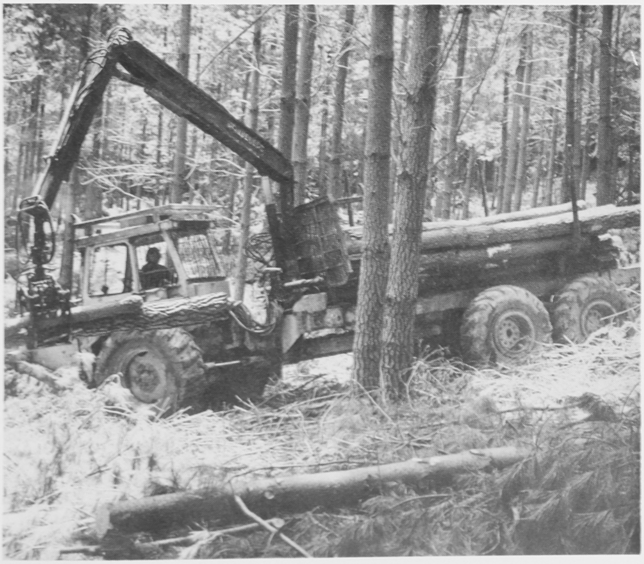
"Australia the First Hundred Years" by the Hon. Andrew Garran, M.A., LLD., M.L.C.

Left: Engraving "Cedar-getting on the Richmond River" by J.R. Ashton. Soon after the earliest settlement in the colony, cedar-getting became an important industry. Cedar-getters were pioneers in that they explored much of the coastal region and opened the way for settlers. The industry was operating along the Hawkesbury River in 1790, and soon became established along the Hunter River, Port Stephens and the northern river systems. Bullocks provided the chief means of heavy transport for carting timber from the forests to the mill. The other method of transport was to cast branded logs into the rivers or harbours where they floated with the stream or tide to "saleable waters" and were sold by their owners. From the early 1820's to the 1850's a considerable quantity of cedar was exported. The industry declined after 1890 as most of the timber available had been hewn.

Right: In the early days of the colony, logging was carried out entirely with axes and cross-cut saws. In the case of eucalypts, the bushmen stood on planks inserted into notches in the trees about 3 to 4 metres above the ground. This allowed them to cut above the larger buttressed section of the tree and so avoid the defects commonly found in the butt section of eucalypts. Once the tree was felled, it was cut with a cross-cut saw into lengths that could be hauled by a bullock team. The practice of felling and cutting timber acquired a sporting significance when individual contests among timber-getters gave rise to competitions at country shows and carnivals. Woodchopping contests are now features of large agricultural shows, such as the Sydney Royal Easter Show.



Forestry Commission of N.S.W.



Left: A modern forest harvesting machine, the six-wheel-drive forwarder, has taken the place of the crawler tractor in many logging operations due to its versatility and energy-efficiency. In modern logging operations, forests are thinned and trees cut into log lengths by professional cutters using chain saws. The forwarder then loads the logs into its rear trailer compartment, and later transfers them to a road-haul unit using its crane. A prime mover then transports the timber to the mill. The main forest timber logged in New South Wales is that of the native eucalypt hardwoods, including blackbutt, Sydney blue gum, tallowwood, spotted gum, messmate, brown barrel, and the related species, brushbox. Cypress pine is the principal native softwood logged and radiata pine is the principal species grown in forest plantations. Brushwoods from the rainforest stands are being used to a lesser extent.

N.S.W. Government Printer

Darling Harbour in the 1880's was important for its timber trade, and its shoreline was dominated by timber mills and wharves for storing the timber which had been transported by sea. Darling Harbour was described by Thomas Richards, Government Printer, in the book "New South Wales in 1881": "There are several large joinery works, fitted with the best labour-saving machinery, and the most modern appliances used in the trade ..... At Messrs. Goodlet & Smith's Pyrmont establishment about 100,000 feet of timber are sawn weekly, nine-tenths of which consist of colonial hardwood, cedar, beech, and pine. Nearly every sort of building materials is manufactured by the firm". The wharf had a waterfrontage of 475 feet and had timber storage for 8 million feet, and on ground adjoining the wharf were saw mills and joinery works together with a six-storied store capable of holding 10,000 tons of merchandise. The wharf and stores were worked by hydraulic cranes and lifts.

A Japanese bulk carrier loading woodchips (foreground), via a conveyor belt (located within the pipe shown), at the Eden plant of Harris-Daishowa (Aust.) Pty. Ltd., on the shores of Twofold Bay, southern New South Wales. Export of hardwood woodchips from Eden began in the early 1970's from a demand for raw materials for the pulp and paper industry in Japan. Other countries have subsequently become purchasers of woodchips. Woodchips are produced from eucalypts by feeding logs through a rapidly rotating series of blades in a chipping plant. They are stored in huge piles in the open until loaded into bulk carrier ships especially built for the purpose. The timber used for woodchips is of low-quality - unsuitable for saw-milling because it is either too small for sawing, or of undesirable shape - or consists of early plantation thinnings, or offcuts from sawmills, which in the past have been burnt.

Forestry Commission of N.S.W.

Left: Unloading a catch of gemfish and other deepwater species at Eden on the south coast. This section of the south coast is renowned for its highly productive fishing waters. Large catches of salmon, tuna and barracouta are made and a fish cannery at Eden is the largest in Australia. Twofold Bay was a great whaling port from 1828 and whaling from the shore continued intermittently until about 1930.

Below: Trout farm near Albury, southern N.S.W. Commercial trout farms have been established in the colder regions of the State to produce trout for sale at a marketable size, for the release of trout fingerlings into specified streams, for the stocking of private waters such as farm ponds on properties, and to produce ova for sale to other operators who continue the rearing process. Some farms provide a pond at which people pay for the fish they catch. Trout farms provide the ideal environment for monitoring the size, life span, diet, migration patterns and reproduction of the fish. The State Government runs two hatcheries for research purposes, at Jindabyne and Ebor, but these do not breed trout for marketing.

Fisheries Division, Department of Primary Industry

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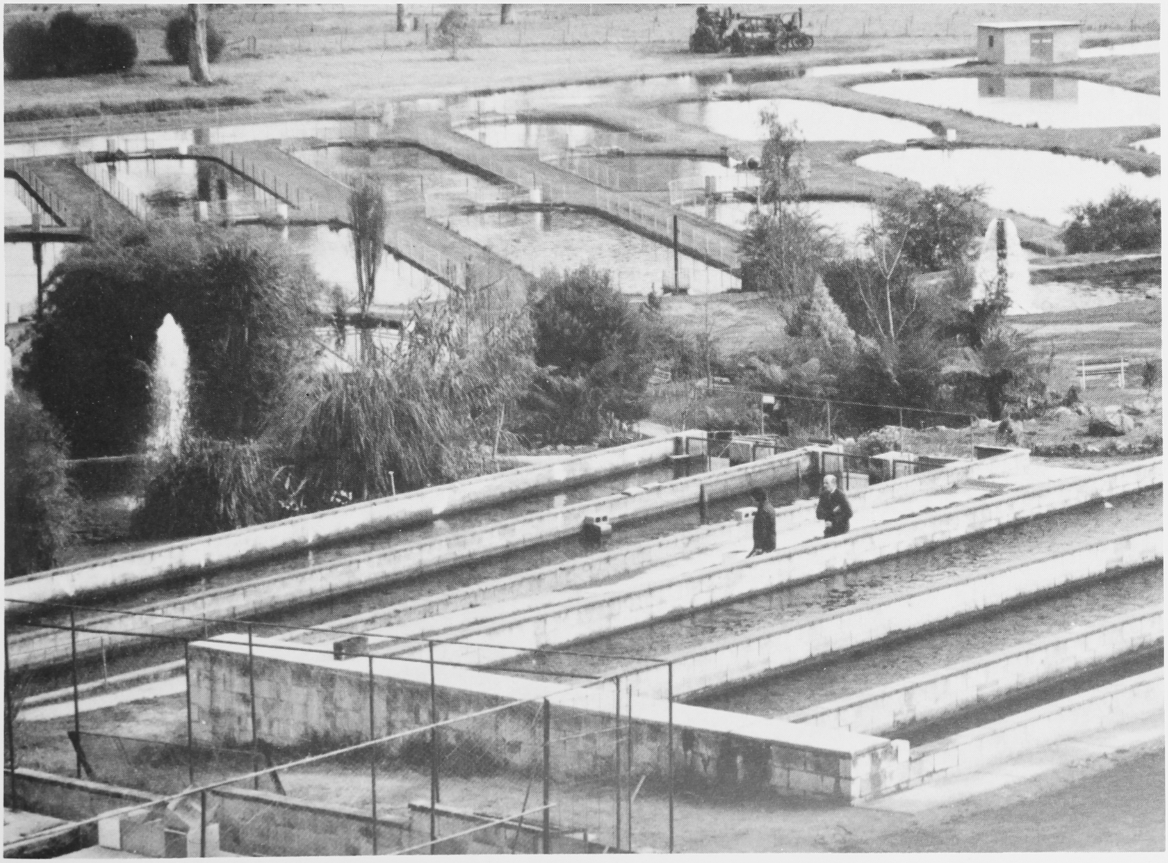

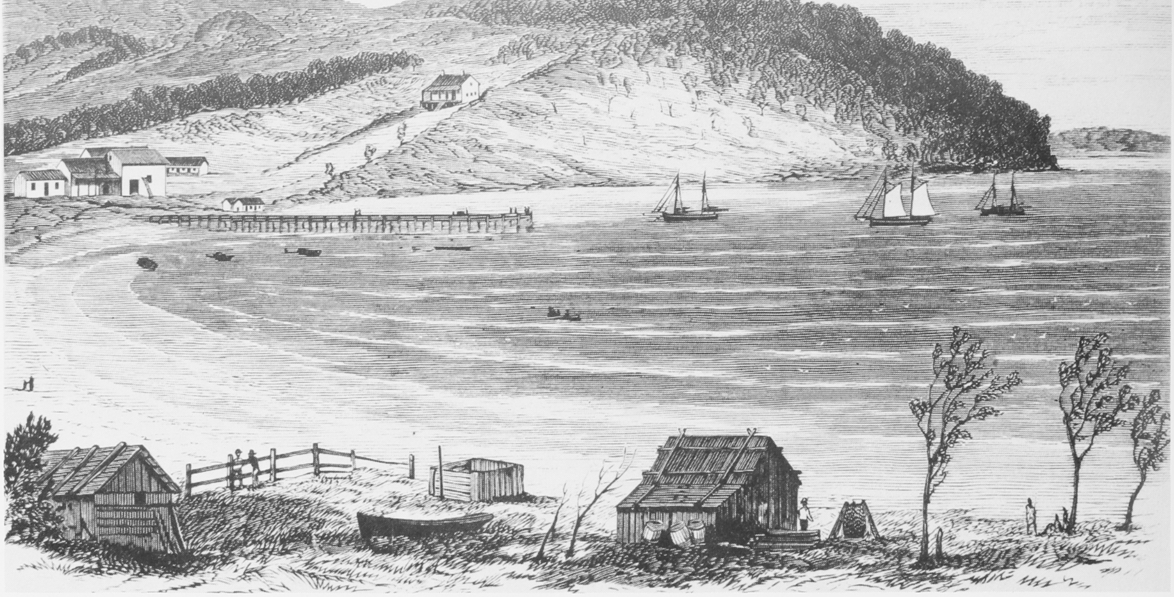

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Above: An etching from the "Illustrated Sydney News", 22 January 1881, showing Nelson Bay on the southern shore of Port Stephens. This view depicts the newly erected N.S.W. Fish Company's factory (shown near the end of the wharf) which manufactured 4 tons of ice per day for local fishermen to preserve their catch prior to its transport to the Sydney market. Today, the entire area shown in this illustration is being developed by the N.S.W. Department of Public Works into a man-made inner harbour to provide safe anchorage for the fishing fleet and all-weather access to a recently upgraded fish co-operative. Also provided for in the development (due for completion in 1988) is a marina for game fishing and other cruising craft. Port Stephens has been intimately connected with the fishing industry since the early days of the colony. Initially, it was mainly utilised by transient groups of Chinese fishermen visiting the Port from China. At this time, their catches of fish were preserved by drying, salting and curing, and after 1850 found a ready Australian market with the Chinese on the goldfields and with Chinese merchants in Sydney and Melbourne. It was not until the 1880's however, with the development of ice works at Nelson Bay and at Pindimar on the northern shores, that fresh fish from Port Stephens found their way to the Sydney markets. Later, in the 1920's and 1930's, fish factories operated at Pindimar in processing sharks meshed in the vicinity, and in canning fish and oysters. These ventures ultimately proved uneconomic because of the increasing need to move further and further from Pindimar for the daily catch. An oyster industry developed in the 1870's and today still flourishes along the foreshores and in the Myall and Karuah River confluences with the Port. The picture below shows a group of oyster openers at work. In recent years the development of tourism at Port Stephens has resulted in the linking of Hunter Valley industries — tourists who visit "oyster barns" may now combine tasting of Hunter wines with the delights of tasting the various varieties of oysters grown in Port Stephens and other northern coastal waters.

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quantity. Appeals against any licensing decision may be made to the Land and Environment Court. All licences are renewable on an annual basis, and licence fees are calculated according to the size of the operation.

The Clean Air Act 1961 is concerned with the prevention and abatement of air pollution from premises and motor vehicles in New South Wales. Air pollution, as defined in the Act, includes emission into the air of any air impurity including smoke, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, mists, odours and radioactive substances. Amendments to this Act in 1986 provide for controls over backyard burning in Sydney urban areas. Cars made or imported after 1 January 1986 have been designed to use only unleaded petrol.

The Clean Waters Act 1970 aims to prevent and abate pollution in the State's rivers, streams, lakes, natural or artificial watercourses, dams or tidal waters (including estuaries, ocean beaches and the sea), and underground or artesian waters. Pollution in terms of the Act, includes placing in or on waters any refuse or debris whether solid, liquid, or gaseous which changes the physical, chemical or biological condition of waters.

The Noise Control Act 1975 aims to prevent, minimise and abate noise in the community. Provision is made in the Act for quantitative standards to be set for noise emitted from articles, vehicles and premises, and for action to be taken to protect persons from "offensive noise".

The Environmentally Hazardous Chemicals Act 1985 creates comprehensive controls of all chemicals which can adversely affect human health and the environment. The Act enables the State Pollution Control Commission to regulate the introduction, manufacture, storage, transport, use and disposal of chemicals, and to control chemical wastes. Its provisions complement a proposed national scheme for notification and assessment of new chemicals, and also complements existing poisons and pesticides legislation.

The Recreational Vehicles Act 1983 provides for the regulation of the off-road use of motor vehicles. The Act enables areas to be designated as "recreation vehicle areas" and provides for the control of vehicles used in these areas.

Further details of the Clean Air Act, Clean Waters Act, the Noise Control Act, the Environmentally Hazardous Chemicals Act and the Recreation Vehicles Act are contained on pages 271-274 in the 1986 issue of the New South Wales Year Book.

Waste Disposal Authorities

Local government authorities may provide household garbage services and operate rubbish tips. Total outlay on sanitation — household garbage in 1985 by municipalities and shires in New South Wales was $106m ($73m in Sydney Statistical Division (SD)) represents 5 per cent (7 per cent in Sydney SD) of total outlay on ordinary services. Revenue and loan receipts for garbage services was $79m ($52 in Sydney SD).

Metropolitan Waste Disposal Authority

The Authority was established under the Waste Disposal Act 1970 with the objective of ensuring that waste generated in the Sydney region is collected, transported, treated, stored, and disposed of in an efficient and environmentally acceptable manner. The Authority provides waste disposal facilities for solid waste from domestic and commercial sources as well as for solid and liquid industrial wastes. The management of liquid wastes includes ensuring that all industrial liquid wastes which cannot be reclaimed and re-used are converted to a form which presents no hazard to the environment when deposited as landfill. An aqueous based industrial liquid waste treatment plant is currently under construction at Auburn, and will be operational by mid 1988. The Authority also encourages the recycling of selected wastes and waste exchange between companies, and provides recycling facilities and advisory services. Research is currently directed towards the evaluation of resource recovery technologies such as waste composting and the extraction of methane gas from landfills for use as a fuel.

Metropolitan Water, Sewerage and Drainage Board

In the Sydney region, the South Coast (as far south as Gerroa) and the Blue Mountains area, the Metropolitan Water, Sewerage and Drainage Board is the main authority responsible for the provision of sewerage services. Sewerage in the lower Hunter region is controlled by the Hunter District Water Board and statutory boards control sewage treatment services in

Broken Hill and Cobar. In other areas of the State, sewage treatment services are provided by local government authorities. Revenue, expenditure and capital debt of these authorities and of the Hunter and Metropolitan Water Boards are given in Chapter 23, "Public Finance".

At 30 June 1986 the Metropolitan Water, Sewerage and Drainage Board provided sewerage facilities to 1,089,192 improved properties and to an estimated 3,244,000 people in the Board's area. A population of 2,571,050 is served by primary treatment works (i.e. providing screening, grit-removal, grease-removal and sedimentation) at major and minor ocean outfalls in the Sydney and South Coast areas. Construction has commenced on a project to provide long deepwater submarine outfalls at Malabar, North Head, and Bondi to replace the major cliff-face outfalls currently in use at those locations. The outfalls will greatly reduce sewage-related beach pollution. The Board is also introducing more stringent standards on the types and concentrations of liquid trade wastes discharged to sewers, to ensure the new ocean outfalls operate at full efficiency and pollution of beaches and waterways is minimised. At inland plants of the Sydney region, secondary treatment is provided either by biological filtration or the activated sludge process and chlorination. In most cases some form of tertiary treatment, such as retention in oxidation ponds, is also provided before discharge into creeks and rivers. In 1984-85 the Board commenced a three-stage nutrient control program at inland sewage treatment works, which will greatly reduce the excessive growth of algae and water weeds in the Georges and Hawkesbury-Nepean River systems.

Coastal Protection

The Coastal Protection Act 1979 makes provisions relating to the use and occupation of the coastal region and facilitates the construction of certain coastal protection works. The Act allows the Minister for Public Works and Ports to choose to approve any development which may adversely affect the waters or foreshores in the "coastal zone". In addition, the Act provides for the Public Works Department to undertake selected programs to preserve, protect, maintain, restore or improve the coastal area and to oversee and advise on developments in the area.

Regional Open Space Improvement Projects

The Sydney Greenspace Program was launched in 1983. Its primary purpose is to upgrade regional open space by carrying out permanent improvement works to enhance its use by the public. As a secondary, but equally important purpose, the program is designed to increase employment opportunities through local councils carrying out the work, with emphasis on the employment of unemployed persons.

The Natural Areas Enhancement Scheme (NAES), which was launched in 1985, is a joint Commonwealth/State Government project. The scheme aims to create jobs and develop recreational facilities near major waterways in areas of particular disadvantage in Australian capital cities. The Commonwealth Department of Local Government and Administrative Services is the sponsor for the NAES projects using (Commonwealth) Community Employment Program funds. The Department contributes funds to assist council participation in the scheme and assists the Commonwealth Government with the administration of the scheme.

By early 1987 the Department of Environment and Planning had approved approximately 111 projects in the two schemes, 101 of which were completed.

Heritage Council of New South Wales

The Heritage Act 1977 established the *Heritage Council of New South Wales*, which makes recommendations related to the conservation and enhancement of the environmental heritage. The term "environmental heritage" means those buildings, works, relics or places of historic, scientific, social, cultural, archaeological, architectural, natural or aesthetic significance to the State. The Act provides for the making of interim and permanent conservation orders. These orders require that any demolition, damage, or alteration to the buildings, works, relics or places to which they apply must have the prior consent of the Heritage Council. If an applicant is dissatisfied with a decision of the Heritage Council, an appeal may be made to the Minister for Planning and Environment. The Act also makes provision for emergency controls to prevent the demolition of buildings which are not the subject of conservation orders, but which may prove on further investigation to warrant the making of an interim or permanent conservation order. In cases of urgency, when demolition appears imminent, an order can be made to halt demolition for a period of up to 28 days pending further investigation. The Act also provides for a fund from which grants and loans may be made available for conservation projects.

The Heritage and Conservation Branch of the Department of Environment and Planning services the Heritage Council. The Branch undertakes liaison with local councils, other authorities, community groups and the general public on the broad range of heritage issues throughout the State. In particular, it provides detailed advice to councils on the preparation of environmental planning instruments with a view to conserving and enhancing heritage items in local areas.

National Parks and Wildlife Service

The *National Parks and Wildlife Service* is responsible for the conservation of natural and cultural resources in New South Wales. The Service is involved with the conservation of wildlife, the natural environment, historic sites and Aboriginal sites, places and artefacts. Further information on the Service and on the National Parks and Wildlife Act 1974 is given in Chapter 8 "Culture and Recreation".

URBAN AND REGIONAL DEVELOPMENT

The New South Wales authorities with major responsibility for State urban and regional development are the Department of Environment and Planning, the Darling Harbour Authority, the Department of Industrial Development and Decentralisation, the Hunter Development Board, Industry Development Boards, the Bathurst-Orange Development Corporation, the Albury-Wodonga (New South Wales) Corporation, and the Department of Housing. Local government councils are responsible for making planning decisions about development in their areas but these must be consistent with State and regional planning policies (see earlier text in this chapter).

STATE AUTHORITIES CONCERNED WITH URBAN DEVELOPMENT IN SYDNEY

Department of Environment and Planning

The Department of Environment and Planning is involved in the production of strategies for the planning and development of the Sydney region, including the application of existing policies and programs, and initiatives for metropolitan development which include structural options for the physical growth of Sydney over the next few decades. For some years, the Government has been concerned about the declining population in established areas and about the high cost of peripheral expansion of Sydney. This has led to the adoption of two major inter-related urban development policies:

(a) urban consolidation with the purpose of reducing the cost of urban expansion to the community, meeting the changing housing needs of the population and containing the rate of increase in housing costs, and

(b) an urban development program which establishes a land release process based on the demand for land and the capacity of public authorities to provide the necessary services such as water, sewerage, transport and education.

Urban Consolidation Policy

The urban consolidation policy of the New South Wales Government is aimed at increasing both residential densities and the supply of sites for multi-unit housing throughout the Sydney region. The objectives of the policy are:

(a) to meet the diverse housing needs of aged persons, single parent families and other types of households who need specific housing types and locations which are most appropriate to their needs;

(b) to direct some growth away from the urban fringe and into established areas in order to reduce the costs that urban expansion creates in the provision of schools, hospitals, public transport and other infrastructures;

(c) to ensure that existing spare infrastructure capacity in established areas, such as water supply and sewerage, is more efficiently utilised; and

(d) to reduce the rate at which housing costs are rising by increasing the supply of dwellings including more rental housing.

The Government promotes urban consolidation by a variety of measures including the use of surplus government sites, dual occupancy, smaller lot sizes, infill development, and re-cycling non-residential buildings for residential use. Towards this end, a number of State Environmental Planning Policies and Regional Environmental Plans have been prepared. These facilitate the development of specific types of housing, such as dual occupancy and housing for the aged and disabled throughout the urban area.

While Councils now have the responsibility for local urban consolidation initiatives, the Department of Environment and Planning has a role in encouraging metropolitan-wide measures and monitoring the progress and success of councils in achieving the aims of urban consolidation.

Urban Development Program

The Urban Development Committee provides a co-ordinated forum to advise the Government through the Minister for Planning and Environment on all matters of urban development, particularly the supply of residential land, the need for land releases, and the scheduling of necessary planning, provision and financing of roads, utilities, public transport and community facilities and services. Membership of the Committee is drawn from a number of State Government agencies involved with urban development and a representative of local government. The Urban Development Committee schedules the planning, servicing and lot production of new releases by way of the Urban Development Program. The Program covers a five year period and is rolled forward by one year each June. In formulating the Program, consideration is given to:

(a) subdivision and dwelling production during the previous year;
(b) projections of housing demand and supply;
(c) the development potential of new areas for possible inclusion in the Program to meet anticipated demand;
(d) the capacity of relevant agencies and authorities to provide services to facilitate and accompany development; and
(e) the contribution of urban consolidation in meeting housing demand.

The Committee also considers medium to long term options. The planning framework for long term development is provided by the Sydney Region Outline Plan (1968), which was reviewed in 1980. The Committee requested the preparation of a metropolitan strategy to guide the growth of Sydney into the next century. In 1983, the Government accepted the recommendation of the Committee that the North-West Sector of Sydney, which was suggested as a possible growth area in the Sydney Region Outline Plan, be given priority for medium-term development.

Western Sydney Planning and Development Committee. The Committee was formed under the Environmental Planning and Assessment Act, and has the role of advising the Minister on a range of environmental planning and development matters in order to secure the orderly and economic development of Western Sydney. This includes consideration of transport, social community development, public utility services and co-ordination of relevant public and private sector activities.

Darling Harbour Authority

The Darling Harbour Authority was constituted by the Darling Harbour Authority Act 1984, to control the development of land within the Darling Harbour area in accordance with development plans approved by the Minister for Public Works and Ports. The operation of various land use legislation (including the Environmental Planning and Assessment Act) has been excluded from the area and the Authority exercises full developmental control over the fifty hectare area. The major components of the project include an exhibition centre, a convention centre, the National Maritime Museum, the National Aquarium, a harbourside park and waterfront promenade, Chinese gardens, harbourside restaurants and retail markets, an international hotel and casino, and a monorail link with the centre of Sydney. The major construction projects are scheduled for completion by January 1988, to coincide with bicentennial celebrations.

STATE AUTHORITIES CONCERNED WITH REGIONAL DEVELOPMENT

Department of Environment and Planning

The role of the Department in drawing up regional environment plans is discussed earlier in this chapter.

Department of Industrial Development and Decentralisation

The Department of Industrial Development and Decentralisation is responsible for initiating, co-ordinating, and implementing the State Government's economic development policies in the Macarthur Growth Area of the Sydney Region, and in the eleven non-metropolitan regions of the State. The Department also liaises with the two growth centre corporations (the Bathurst-Orange and Albury-Wodonga Development Corporations) and monitors their budgetary, planning and development activities. Details of the Macarthur Growth Area and the growth centre corporations are shown on pages 280-283 of the 1986 issue of the New South Wales Year Book. The Government made major policy changes during 1985-86 in relation to the growth centres of Macarthur and Bathurst-Orange. The land development activities will be progressively phased out and emphasis placed on regional promotion and assistance to business and industry. The establishment of Regional Economic Development Units to organise the new activities has commenced, and are expected to be in place in both centres by 1992.

The Department provides funding to industry and special area groups under various programs, including the Country Industries Assistance Fund (CIAF). The CIAF was established under the State Development and Country Industries Assistance Act 1966 as part of the Government's program to achieve balanced development and encourage expansion and/or relocation of employment-generating industry to country regions. Assistance was provided for manufacturing, processing or wholesale distribution industries or for other purposes approved by the Minister. The major forms of assistance included pay-roll rebates; loans for the construction or purchase of factory premises; assistance with the housing of key employees; grants and subsidies for feasibility studies, consultancy studies, relocation costs and labour training; interest rate subsidies; and loan guarantees to a maximum of $250,000. Expenditure from the CIAF in the last six years is shown below.

Expenditure from Country Industries Assistance Fund ($'000)

Type	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Factory and general loans	8,000	8,905	7,271	2,547	998	3,919
Pay-roll tax rebates	10,061	11,788	15,979	16,593	14,035	15,304
Housing loans	2,502	1,364	241	—	—	—
Industrial land	1,679	381	100	1	—	40
Grants and other subsidies	2,282	1,805	735	745	552	643
Other	1,241	1,450	2,164	2,718	3,539	4,680
Total expenditure	**25,765**	**25,693**	**26,490**	**22,604**	**19,124**	**24,586**

With the establishment of the New South Wales Investment Corporation in 1986, funding will cease to exist in its current form, although certain financial assistance to industry will still be available from the Department.

Industry Development Boards

In performing its role in the country regions the Department is assisted by Industry Development Boards appointed by the Minister. The role of the Boards is to actively encourage the development and expansion of industry and commerce and the creation of employment opportunities within their respective regions by mounting specific promotional programs, and by providing advice and assistance to the Minister for Industrial Development and Decentralisation. The regions which have been defined for development purposes are; Northern Rivers, Mid-North Coast, New England, Orana, Far Western, Murray, Riverina, Central Western, South Eastern, Illawarra and Hunter. The Hunter Region is serviced by the Hunter Development Board which is described on page 282 of the 1986 issue of the New South Wales Year Book.

The Department has been reviewing past policies and objectives and formulating plans for ensuing years. In the place of previous decentralisation policies is a program of Regional

Economic Development, that is, development within regions that can be sustained by the resources of the respective regions. These resources may be in the form of natural, man-made, and/or introduced resources. The Department is compiling a register of resources to promote industrial development in N.S.W. country regions. The register will provide investors with a ready means of identifying the resources available for the creation or expansion of specific industries in any of the State's eleven country regions.

Department of Housing

The (N.S.W.) Department of Housing commenced operations on 1 January 1986. It took over the activities of the former Land Commission, Housing Commission and various housing-related divisions of other departments. The main functions of the new Department, in relation to regional development, include:

(a) to ensure that the State Government can provide the variety of housing needs in the community;
(b) to provide a consistent and co-ordinated relationship within the Housing Department and between state and federal government departments, local government, industry and consumer groups;
(c) to facilitate the development of innovation in public and community housing programs, management, standards and design, and in catering for special housing needs
(d) to promote orderly and economic urban development and the adequate supply of affordable and suitably located land for housing at the minimum practicable cost to consumers;
(e) to encourage the planning and development of new urban areas as communities with a full range of appropriate services and facilities available in the shortest practicable time; and
(f) to increase employment opportunities in home building.

Building, planning, design, construction and maintenance activities account for a significant proportion of the Department's expenditure on the provision of public housing accommodation of good amenity and appropriate size in preferred localities. This involves construction in localities throughout the State, some well-removed from major centres of population and others in urban centres where land is very costly and/or in short supply.

During 1985-86 plans were approved for sites in Dundas, Quakers Hill, Undercliffe and West Kempsey which will yield 157 dwellings. Plans for a service industry site in Shellharbour were approved as were amendments to projects in Bayldon, Nowra, Griffith and Orange. Twenty-one site investigation studies were carried out in 1985-86. These sites will potentially yield 1,106 dwelling lots.

FURTHER REFERENCES

Annual Reports of: Auditor-General, Valuer-General, Central Mapping Authority, New South Wales Department of Environment and Planning, Department of Industrial Development and Decentralisation, Department of Local Government, Department of Lands, Department of Housing, Darling Harbour Authority, Bathurst-Orange Development Corporation, Albury-Wodonga (New South Wales) Corporation, (New South Wales) National Parks and Wildlife Service, Department of Public Works and Ports, State Pollution Control Commission, Metropolitan Waste Disposal Authority, Metropolitan Water, Sewerage and Drainage Board, Coastal Council of New South Wales, Heritage Council of New South Wales, (Commonwealth) Department of Arts, Heritage and Environment, National Parks and Wildlife Service and the Australian Heritage Commission. Commonwealth Government Directory, Volume 2 FOI Statements: Arts, Heritage and Environment Portfolio. *New South Wales Real Estate Market* Valuer-General's Department. *Hunter Region Regional Environmental Plan No. 1:* Department of Environment and Planning, March 1982. *Sydney Region North West Sector Regional Environmental Study*, 2 Volumes, Department of Environment and Planning, 1984. *Urban Development Program, Summary Sydney Region, 1984-85 to 1988-89*, Department of Environment and Planning. Reports of the Joint Select Committee of the Legislative Council and Legislative Assembly into the Western Division of New South Wales (1983 and 1984).

12

FORESTRY AND FISHERIES

FORESTRY

THE FOREST ESTATE

The Forestry Commission of New South Wales estimates that the total area of forested land in New South Wales is about 15,000,000 hectares. In addition to 3.35 million hectares within State Forests and 223,000 hectares of timber reserve, this total area includes over 5 million hectares in private ownership and over 6 million hectares of land in other forms of Crown ownership, including leasehold, vacant Crown land and National Park. The forest area is mainly in the Coastal and Tableland Divisions.

Forests on vacant Crown lands include substantial areas which are inaccessible or of poor quality. Those which have a prospective value for timber supply are being considered for dedication as State Forests. A considerable proportion of such areas has protective value for soil and water conservation. Forests on leasehold and private land include remnant stands which are in the process of being cleared with the spread of settlement, and are not generally devoted to commercial afforestation.

State Forests

At 30 June 1986 there were 789 State Forests. Nearly 80 per cent of their area carries eucalypt forest and about 12 per cent supports the cypress pine forests of the western slopes and plains. Rainforest and pine plantations comprise most of the remainder. These State Forests and other Crown-owned timber lands provide more than three quarters of all the timber produced in the State each year.

In addition to their use for timber production, the State Forests play an important role in the protection of water catchment areas. They also attract over a million visitors a year seeking outdoor recreation, and are used in some areas for grazing by domestic stock under forest lease or occupation permits.

FOREST MANAGEMENT

The Forestry Commission's principal forest management policies are:

(a) managing the forests to play an expanding role in recreation, education, wildlife conservation, catchment protection and scientific research;
(b) managing the forests to provide a continuing supply of forest products; and
(c) providing an exotic softwood plantation resource.

Timber harvesting on State Forests and other Crown-timber lands is regulated by a quota system, and is carried out with regard to the subsequent regeneration of the areas logged.

Manuscript of this section prepared in May 1987.

Area *(a)* of Forest Plantations, N.S.W.
(*Source*: Forestry Commission of New South Wales)
(Hectares)

	At 31 March					
Type	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Government —						
Coniferous	139,401	144,569	138,727	147,887	154,143	161,791
Broad-leaved *(b)*	9,192	9,658	10,030	n.a.	n.a.	n.a.
Private —						
Coniferous	40,228	49,086	50,217	53,967	56,362	58,368
Broad-leaved	9,692	9,478	8,748	8,704	3,787	1,965
Total, N.S.W.						
Coniferous	179,629	193,655	188,944	201,854	210,505	220,159
Broad-leaved *(b)*	18,884	19,136	18,778	8,704	3,787	1,965
Total *(b)*	**198,513**	**212,791**	**207,722**	**210,558**	**214,292**	**222,124**

(a) Excludes firebreaks and other areas not actually forested. *(b)* Excludes government enrichment plantings of native broad-leaved trees within existing natural forests. For 1984 and later years, details on government plantings in broad-leaved forest areas are no longer included in plantation records.

Forest Protection

Forests are subject to damage by many agencies, including fire, insects, fungi, weeds and certain mammals, such as rabbits and pigs. Protection against these is an important part of the work of the Forestry Commission. Fire protection involves the establishment of roads and trails providing access into various parts of the forest estate; look-out towers; an extensive radio communication network; water supplies; trained staff located in appropriate areas of the State; and specially designed fire-fighting equipment. It also involves the use of prescribed burning to reduce the fire hazard over extensive areas, during safe periods of the year, aircraft are widely used for this hazard reduction, and in fire control.

Forestry Commission of New South Wales

The constitution, powers, objects, and duties of the Forestry Commission of New South Wales are prescribed in the Forestry Act 1916. It is responsible for the management and protection of the State Forests and timber reserves; the conversion, marketing, and economic utilisation of forest produce from State Forests, timber reserves and certain categories of Crown lands; the licensing of timber-getters and sawmills; and the organisation of research into silviculture and wood technology. It is also responsible for the provision of adequate timber supplies by establishing plantations of exotic tree species and developing native forests.

Revenue is raised by the Forestry Commission from the sale of standing timber in State Forests and from royalties collected for logging on Crown timber lands.

TYPES OF FOREST TIMBER

The main forest timber of New South Wales is that of the native eucalypt hardwoods, which are used extensively for scantlings, flooring, and specialty uses. Hardwood logs are also used in the round as poles and piles, and hewn hardwoods are used in sleepers, bridge and wharf construction, mining, and fencing. Some hardwoods are pulped for use in the manufacture of wallboards or are converted to woodchips for use in paper manufacture.

Cypress pine is the principal remaining native softwood. It is in demand for panelling, flooring, and other housing purposes which require high resistance to termite attack. Softwood requirements are being met to an increasing extent by radiata pine, which is the principal species used in forest plantations.

Minor products of the New South Wales forests include tanbark, essential oils, medicinal extracts, gums and resins, charcoal, and bark products.

PRODUCTION OF TIMBER

Regulations under the Forestry Act 1916, require the licensing of sawmills and the provision by each mill of a monthly return recording every log received in the mill-yard, whether from Crown or private land. The production of timber in New South Wales in the last six years, as estimated from these returns is shown in the following table.

Estimated Production of Timber, N.S.W.
(*Source*: Forestry Commission of New South Wales)
('000 cubic metres)

Type of timber	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Logs for sawing, slicing, or peeling —						
Forest hardwoods	1,485	1,390	1,087	1,168	1,225	1,275
Brushwoods and shrubwoods	65	55	21	17	17	7
Softwoods —						
Cypress pine	134	124	98	96	97	99
Plantation conifers	480	512	402	502	529	548
Hewn (including mining timber) *(a)*	257	262	277	258	274	215
Poles and piles *(a)*	73	91	64	67	78	77
Pulpwoods	944	985	1,160	1,193	1,400	1,284
Total (excluding firewood)	**3,438**	**3,420**	**3,109**	**3,301**	**3,620**	**3,505**

(a) Prior to 1981-82 girders were included in hewn. From 1981-82 girders are included in poles and piles.

The following table shows the quantity of Australian grown sawn timber produced in New South Wales estimated from log figures shown in the preceding table, and based on industry recovery factors which allow for wastage when logs are sawn.

Timber Sawn in New South Wales *(a)*
(*Source*: Forestry Commission of New South Wales)
('000 cubic metres)

Type of timber	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Hardwoods	719	667	522	561	588	612
Brushwoods	29	24	10	8	8	3
Softwoods —						
Cypress pine	57	53	42	41	42	43
Plantation conifers	245	256	201	251	265	219
Total, softwoods	*302*	*309*	*243*	*292*	*307*	*262*
Total, sawn timber	**1,050**	**1,000**	**775**	**861**	**903**	**877**

(a) From Australian grown logs. Includes sawn sleepers and logs peeled or sliced for veneers.

IMPORTS AND EXPORTS

Overseas imports of timber into New South Wales consist mostly of undressed timber, mainly softwoods. The undressed softwoods, such as douglas fir, hemlock pine, western red cedar, radiata pine, and redwood, come principally from Canada, the United States of America, and New Zealand. The hardwoods, such as meranti, Philippine mahogany, ramin, and teak come mainly from Malaysia, Indonesia, the Philippines, and Thailand. New South Wales exports consist principally of woodchips to Japan.

FISHERIES

The waters along the coast and in the river estuaries of New South Wales contain many species of fish, prawns, and other crustaceans of high commercial value. The continental shelf and slope support valuable fisheries for prawns and fish. Carp, perch, Murray cod, and other freshwater species are taken from the inland waters.

MANAGEMENT OF FISHERIES

Fisheries in New South Wales are administered by the New South Wales Government in respect of inland waters and coastal waters within territorial limits. The Commonwealth Government is responsible for administration of fisheries beyond territorial waters and in certain proclaimed waters. An amendment to the (Commonwealth) *Fisheries Act 1952*, which became effective early in 1983, provides mechanisms for the Commonwealth and States to consult and agree on management of a particular fishery, applying either State or Commonwealth law to implement agreed measures throughout the fishery irrespective of whether it lies within or beyond territorial waters. Complementary State legislation for these arrangements with New South Wales was provided by a 1982 amendment to the (State) Fisheries and Oyster Farms Act 1935.

Fisheries in New South Wales

Fisheries in New South Wales are regulated by the New South Wales Department of Agriculture, through its Division of Fisheries, in terms of the Fisheries and Oyster Farms Act 1935.

Oyster Farming

Under the Fisheries and Oyster Farms Act areas suitable for oyster culture are leased from the N.S.W. Department of Agriculture, usually for a 15-year term and at a rental determined by the Minister. When a lease expires, the existing lessee has a preferential right to apply for its renewal. There are few unleased areas still available for the conventional stick and tray cultivation of oysters because of navigational and other restrictions.

The following table shows the number and extent of leases for oyster culture in recent years.

Oyster Leases, N.S.W.
(*Source*: N.S.W. Department of Agriculture, Fisheries Division)

	At 30 June					
Leases	*1982*	*1983*	*1984*	*1985*	*1986*	*1987(a)*
Number of leases	5,208	5,010	4,647	4,450	4,210	4,183
Length of foreshore in leases (metres)	791,811	751,627	663,685	610,000	580,000	552,000
Area of off-shore leases (hectares)	3,685	3,538	3,323	3,120	3,011	3,017

(a) As at 12 May 1987.

FISHERIES PRODUCTION

The recorded production of the principal species of fish, molluscs, and crustaceans during recent years by licensed New South Wales professional fishermen is shown in the following table (1983-84 is the latest year for which data are available). The species of fish are listed according to their common name.

Production of Fish, Selected Molluscs and Crustaceans, N.S.W.
(Year ended 30 June)
('000 kilograms *(a)*)

	1979	*1980*	*1981*	*1982*	*1983*	*1984*
			Fish			
Freshwater species —						
Carp	238	374	218	247	132	218
Golden Perch	165	120	99	154	102	77
Murray Cod	19	10	20	28	11	24
Other	33	59	35	29	29	20
Total	*455*	*564*	*372*	*458*	*275*	*339*
Marine species —						
Australian Salmon	182	263	327	307	475	393
Bream	318	494	559	609	596	424
Flathead	1,054	1,159	1,231	1,279	1,335	924
Garfish	70	126	129	121	187	179
Gemfish	4,533	3,784	3,931	3,387	3,420	2,327
Gurnard	80	112	127	128	161	119
John Dory	170	224	206	215	288	254
Latchet	122	178	164	143	131	91
Leatherjacket	74	127	157	166	192	148
Luderick	325	349	390	468	558	449
Mackerel	87	77	132	131	153	156
Mirror Dory	609	290	197	177	294	210
Morwong	1,038	1,276	1,974	1,906	1,715	1,549
Mullet	2,664	3,159	3,409	3,127	3,370	2,829
Mulloway	216	211	260	232	209	141
Pilchard	217	142	228	271	348	352
Redfish	1,665	2,523	2,397	2,262	2,212	2,040
Shark	873	1,049	1,003	972	1,154	962
Snapper	849	911	929	978	905	601
Tailor	96	133	146	136	68	89
Teraglin	69	78	37	30	49	34
Trevally	244	298	444	601	961	1,290
Tuna *(b)*	4,471	3,817	5,164	2,432	1,936	867
Whiting	417	757	799	1,043	1,326	911
Yellowtail-kingfish	243	208	233	288	371	535
Other	1,446	1,912	2,049	2,170	2,818	2,993
Total marine species	*22,132*	*23,657*	*26,620*	*23,580*	*25,231*	*20,867*
Total fish production	**22,587**	**24,222**	**26,992**	**24,039**	**25,506**	**21,205**
			Molluscs and crustaceans			
Oysters	6,620	8,143	8,079	7,409	7,200	6,540
Abalone	549	650	543	608	637	701
Prawns	1,981	2,436	2,792	2,958	2,968	3,060
Crabs and crayfish	298	437	417	492	461	365

(a) Landed weight for fish; in-shell weight for molluscs and crustaceans. *(b) Source*: CSIRO for 1982 and earlier years.

Value of Fisheries Production

The following table shows the value of recorded New South Wales fisheries production and its components for 1978-79 to 1983-84, the latest year for which data are available. A description of the terms "gross" and "local" value is given in the subdivision "Value of Agricultural Commodities Produced, Crops" in the chapter "Agriculture".

Value of Fisheries Production, N.S.W.
($'000)

Item	*Year ended 30 June*					
	1979	*1980*	*1981*	*1982*	*1983*	*1984*
			Gross value			
Fish	17,905	25,072	28,121	25,831	30,698	27,991
Molluscs and crustaceans —						
Oysters	13,721	17,350	20,762	19,782	21,023	19,097
Prawns	8,283	10,901	13,318	13,726	17,687	18,496
Other	2,788	5,338	10,848	15,644	11,070	7,804
Total	**42,698**	**58,661**	**73,048**	**74,983**	**80,478**	**73,388**
			Local value			
Fish	14,728	20,702	23,390	20,972	24,800	22,577
Molluscs and crustaceans —						
Oysters	10,977	13,880	16,642	15,855	16,847	15,277
Prawns	7,041	9,266	11,307	11,655	15,046	15,722
Other	2,367	4,556	9,476	12,823	9,163	6,167
Total	**35,114**	**48,405**	**60,815**	**61,306**	**65,856**	**59,743**

MARKETING OF FISH

The marketing of fish in New South Wales is controlled by the N.S.W. Fish Marketing Authority.

The Authority conducts a market at Sydney, and markets are conducted by fishermen's co-operatives at other coastal centres. Fish produced in the State must be sold through these markets, with the exception that licensed fishermen may sell direct to licensed buyers and, in certain instances, to consumers in areas not serviced by a market. The major part of the State's catch is sold through the Sydney market, either by auction or by private treaty.

The fishermen's co-operatives, which have been established at 24 centres, arrange for the handling of fish after landing and for its transport to market. The co-operatives supply the bulk of the fresh fish sold in Newcastle, Sydney, and Wollongong.

In addition, the Authority promotes the sale of locally caught fish.

Imports and Exports

Overseas imports of fish have provided a considerable proportion of the State's supply. There is a small export trade in canned fish and fresh and frozen fish and oysters. Under the *Fish (Export Inspection Charge) Act 1981,* fishery products for export are subject to Commonwealth Government inspection to ensure that minimum standards of quality, hygiene and presentation are maintained. The fish export inspection fees are payable by persons with the export permit.

Particulars of the overseas trade in edible fisheries products in 1980-81 and later years are given in the next table.

Overseas Trade in Edible Fisheries Products, N.S.W.

Trade	*Year ended June*					
	1981	*1982*	*1983*	*1984*	*1985*	*1986*
			Quantity ('000kg)			
Imports *(a)*	32,689	29,570	30,947	36,842	44,044	42,004
Exports *(b)*	1,995	3,870	1,800	3,116	2,596	3,299
			Value ($A'000 f.o.b.)			
Imports *(a)*	95,127	99,340	111,417	12,8815	154,613	167,102
Exports *(b)*	5,609	9,402	5,409	7,945	10,393	16,942

(a) Excludes live fish whether or not fit for human consumption. *(b)* Prior to 1982, exports are Australian produce of New South Wales origin. From 1982, exports are of Australian produce shipped from New South Wales' ports.

The quantity of fish imported into New South Wales from overseas has been subject to marked fluctuation. Most of the fresh and frozen fish came from New Zealand, Uruguay, the Republic of South Africa and Japan. The principal varieties of canned fish are salmon from the United States of America and Canada, sardines from Canada, Thailand, Norway, United States of America, the United Kingdom and Japan and tuna from Japan and Thailand.

FISH PROCESSING

Fish, molluscs, and crustaceans caught off the New South Wales coast are either sold fresh or preserved. The principal varieties which are canned include Australian salmon and tuna, with redfish being processed into canned pet foods. Whole fish, fish fillets, and prawns are frozen by commercial and fish co-operative establishments throughout the State. Other methods of preservation such as smoking or bottling are not significant.

FISHERIES RESEARCH

The N.S.W. Department of Agriculture is undertaking a marine resources survey of coastal and oceanic waters off the coast to determine the distribution and magnitude of the fisheries resources of these waters and to establish the most efficient means of exploitation. The Brackish Water Fish Culture Research Station at Port Stephens is engaged in research into the practicability and economic feasibility of culturing prawns in ponds. The Department also operates an extensive research station at Narrandera for the study of inland fisheries and to supply juvenile fish for stocking purposes. Trout hatcheries have been established at Jindabyne and at Ebor. Research into oyster pathology and more efficient methods of oyster culture, including deepwater culture, in an attempt to increase production is also being undertaken by the Department.

FURTHER REFERENCES

A.B.S. Publications: *Fisheries, Australia* (Catalogue No. 7603.0); *Pocket Year Book of New South Wales* (1302.1). **Other Publications:** Annual Reports of the Department of Primary Industry; Australian National Parks and Wildlife Service; Fishing Industry Research Committee; Forestry Commission of New South Wales; New South Wales Department of Agriculture; and the Fish Marketing Authority. *Timber Supply Review* and *Australian Fisheries* from the Australian Fisheries Service (AFS).

13

WATER RESOURCES

Over a wide area of New South Wales the rainfall is low and irregular and the rate of evaporation is high. On the other hand, flooding is also a serious problem as often when rainfall does occur, it comes in too great a volume. Conservation and control of water is thus important for the achievement of maximum levels of agricultural production and to satisfy urban and industrial demands. An outline of the principal rivers in New South Wales and details of rainfall and evaporation are given in Chapter 1 "Natural Environment".

NATIONAL SURVEY OF WATER USE

The first national survey of water use in Australia was conducted by the Australian Water Resources Council for the year ended 31 December 1977. Details of this survey are shown in Year Book NO. 70. A second survey, for the year ended 30 June 1984, was conducted by the Council as part of 1985 review of Australia's water resources. This survey showed that approximately 83 per cent of water used in Australia is drawn from surface water sources, and 17 per cent from groundwater sources.

The primary consumptive uses of water in Australia are for irrigation, for urban and industrial water supply, and to a lesser extent for other rural water supply. Additional uses, such as hydro-electric power generation, the dilution of waste or saline water, recreation, environmental uses and navigation, involve no substantial diminution of the natural resource, although in some circumstances they may create important constraints on other uses.

The following table shows for 1983-84, the survey results on the usage of surface and groundwater in Australia.

Consumption of Water, Australia, 1983-84
(*Source*: Australian Water Resources Council)

	Source of water —		
Consumer sector	*Surface water*	*Ground-water*	*All sources*
	Proportion of water source used — expressed as a percentage		
Agriculture—			
Irrigation	77	56	73
Other	5	25	8
Total	*82*	*81*	*81*
Urban/Industrial*(a)*	18	19	19
Total water source used	**100**	**100**	**100**
	Proportion of sector's usage — expressed as a percentage		
Agriculture—			
Irrigation	87	13	100
Other	48	52	100
Total	*83*	*17*	*100*
Urban/Industrial*(a)*	82	18	100
Total usage	**83**	**17**	**100**

(a) Excludes withdrawals for hydro-electric power.

Manuscript of this chapter prepared in May 1987.

AGRICULTURAL USES

The Council's survey showed that public supplies for irrigation are almost entirely served from surface water sources, whereas almost all of the groundwater used for irrigation is from private bores. Further details on irrigation are given later in this Chapter.

URBAN AND INDUSTRIAL USES

The survey showed that for urban and industrial water use, in terms of percentages of the total usage, public supplies from surface water sources account for 77 per cent, public supplies from groundwater 8 per cent, private supplies from surface water 5 per cent and private supplies from groundwater 10 per cent.

The Council also compiled data on the use of water provided by public supplies for urban/industrial purposes in Sydney. This showed that domestic usage accounted for 53 per cent, commercial 23 per cent and industrial 24 per cent.

WATER RESOURCES MANAGEMENT

Under the Australian Constitution, the primary responsibility for water matters rests with State Governments, who have consequently established the principal water management agencies.

The River Murray Commission, the Snowy Mountains Hydro-Electric Authority and the Dumaresq-Barwon Border Rivers Commission have been formed to deal with matters relating to the use of common water resources by more than one State.

COMMONWEALTH JURISDICTION

Department of Resources and Energy

The Department of Resources and Energy has primary responsibility at the Commonwealth level for water resource matters. It provides advice to the Minister, other Commonwealth departments, and to international organisations on all matters relating to water resources in Australia, and administers programs of financial assistance to the Australian States and the Northern Territory. Under the direction of the Department, a program of water research activities is undertaken by the Australian Water Resources Advisory Council. This council was established in 1985, to advise the Minister of Resources and Energy on research into water related matters.

Murray-Darling Basin Ministerial Council

The Murray-Darling Basin Ministerial Council was established in November 1985, and comprises Ministers from the Commonwealth, New South Wales, Victorian and South Australian Governments with portfolio responsibility for land, environmental and water resources matters. The objective of the Council is to promote and co-ordinate effective planning and management for the equitable, efficient and sustainable use of the land, water and environmental resources of the Murray-Darling Basin.

Australian Water Resources Council

The Australian Water Resources Council was formed in 1963 with membership consisting of ministerial representatives of the Commonwealth, State and Northern Territory governments. The Council is the major forum for the development of Commonwealth-State collaborative programs, policies and guidelines which may be considered appropriate to assist the most beneficial development, orderly assessment and management of Australia's water resources.

Water Resources Assistance Program

Details on the National Water Resources Program which operated up to 1983-84, are shown in Year Book No. 70.

In 1983, the Commonwealth established a Federal Water Resources Assistance Program to provide funds under the *National Water Resources (Financial Assistance) Act 1978* to the States by way of grants and loans, for programs or projects of national significance or for special circumstances. Assistance is available under the following sub-programs: *(a)* urban and industrial water supplies; *(b)* agricultural water supplies; *(c)* floodplain management; *(d)* salinity reduction and drainage: *(e)* water conservation and efficiency improvement; and *(f)* water planning.

As well as payments to the States, funds are also made available under the Federal Water Resources Assistance Program For water research, River Murray Commission administration and the Country Towns Water Supply Improvement Program.

Details of Commonwealth assistance in New South Wales in the first three years to the Federal Water Resources Assistance Program are shown below.

	1984-85 expenditure $'000	*1985-86 expenditure* $'000	*1986-87 allocation* $'000
Murray Valley Salinity and Drainage	2,000	2,200	2,577
Dungog Water Treatment Plant	1,650	3,807	5,250
Floodplain Management	1,840	2,687	2,735
Water Resources Assessment	1,250	1,250	—
Country Towns Water Supply Improvement Program	—	575	1,196
Water Conservation Program	—	—	105
Total	**6,740**	**10,519**	**11,863**

STATE JURISDICTION

Under the Water Administration Act 1986, the Water Act 1912 and other related Acts, the Minister for Water Resources has statutory power to determine State-wide water policies and to assist in determining priorities for all water authorities. The Minister is supported by the Department of Water Resources, which replaced the Water Resources Commission on January 1, 1987. Also within the Minister's water resources portfolio are the Water Boards of Sydney, the Hunter District, Broken Hill and Cobar. Each have significant water management responsibilities in their respective regions.

Department of Water Resources

The Department of Water Resources has two major functions. Firstly, it is responsible for advising the Minister in the water resource management role. This includes managing the State's surface and underground water resources; developing and administering policies for the allocation of water resources; providing policy guidelines for water authorities; developing policies to manage water-related environments; quantity of available water resources; co-ordinating research to improve the efficiency of water supply and use; and representing New South Wales in interstate water resource matters. Secondly, the Department provides a range of services to rural areas, including the commercially-based service of water supply. The main services are: operating and maintaining the network of major storages that supply water; operating and maintaining the water supply and drainage systems in the established Irrigation Areas and Districts; licensing and surveillance of water allocated from the State's rivers and streams, and from groundwater; and undertaking flood protection in rural and urban areas, and work to prevent and arrest erosion of river channels.

The Department is headed by a Director, who is responsible to the Minister for Water Resources for the overall administration of the Department and for ensuring that the Government's water policies are carried out effectively.

Metropolitan Water Sewerage and Drainage Board

Under the Metropolitan Water Sewerage and Drainage Act 1924, the Board is responsible for the conservation, preservation and distribution of water for domestic and other uses throughout its prescribed area of operations, which extends over 13,000 square kilometres and covers the whole of the metropolitan area of Sydney and a number of outlying areas including the City of Wollongong, the City of the Blue Mountains and Shellharbour and Kiama Municipalities. Some of the water catchment areas regulated by the Board are outside or extend beyond the Board's prescribed area of operations. The Board estimates that it services approximately 3,426,000 persons.

Water supply for the Board's area is at present drawn from catchments on four main river systems (the Upper Nepean, Warragamba, Shoalhaven and Woronora), with minor supplies drawn from the Hawkesbury River, tributaries of the Grose River, and the Fish and Duckmaloi Rivers. Water catchment areas under the Board's control extend over approximately 16,850 square kilometres. The Board's storage reservoirs have a combined operating storage capacity of 2,395,360 megalitres, including Warragamba Dam which has a capacity of 1,886,000 megalitres. In addition, there are 261 service reservoirs, with a total capacity of 5,416 megalitres, which are used in the distribution of water supplies.

At 30 June 1986, the Board's storage reservoirs held 2,077,294 megalitres of water, or 86 per cent of their maximum operating storage available for supply. Water consumption for the year 1985-86 totalled 589,528 megalitres and the average daily consumption was 1,615 megalitres.

Hunter District Water Board

Under the Hunter District Water Sewerage and Drainage Act 1938, the Board is responsible for the conservation, preservation and distribution of water over an area of 5,367 square kilometres, which encompasses the cities of Newcastle, Lake Macquarie, Maitland and Greater Cessnock, and the Shire of Port Stephens. It controls three major sources of water which provide for the Lower Hunter Region — the Chichester Dam, the Grahamstown Dam and the Tomago Sandbeds. Smaller schemes at Nelson Bay — Anna Bay, Lemon Tree passage and Boat Harbour operate in the Port Stephens area.

During the year ended 19 April 1986, the Board supplied 80,435 megalitres of water, of which 33.2 per cent was used by the domestic sector, 37.3 per cent by the trade sector and 29.5 per cent (including a proportion unaccounted for) by other users. The population of the area serviced by the Board was 429,000 at 19 April 1986.

Country Town Water Supply

Substantial financial assistance is provided each year by the State Government for the construction of water supply works for N.S.W. country towns. The Public Works Department, N.S.W., is responsible for the administration of the Government's Country Towns Water Supply and Sewerage Program which provides this financial assistance. Expenditure on water supply capital works, which is shared equally between local government authorities and the State Government, amounted to $92.2m in 1985-86.

In addition to administration of the Government's Program for financial assistance, the Public Works Department assists Councils in regard to the investigation, design, construction, management and operation of water supply schemes and is responsible for the management and operation of certain water supply undertakings.

N.S.W. country towns water supply schemes which involve some 90 dams and 130 bore systems, serve a total population of about 1,500,000 and the total annual consumption is some 300,000 ML.

Income and outlay on water supply undertakings of municipalities, shires and county councils is given in the subsection, "Water Supply and Sewerage Funds" in Chapter 22 "Public Finance".

State Pollution Control Commission

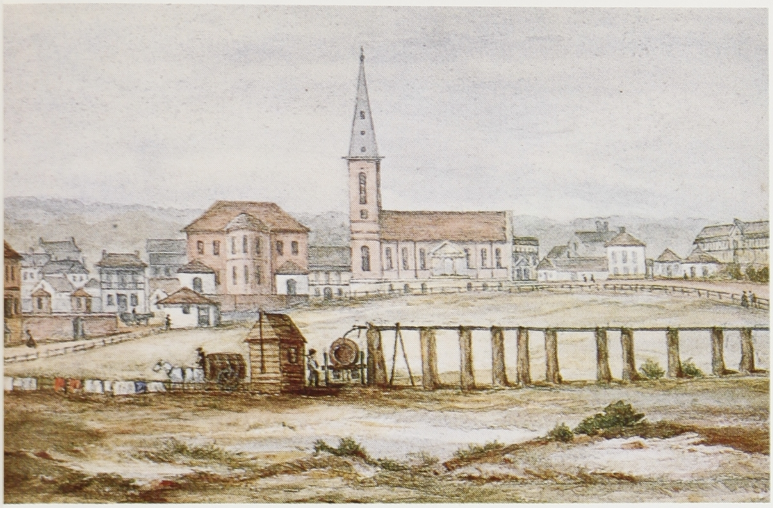
The State Pollution Control Commission is required to take all necessary action towards the prevention and abatement of water pollution in the State's streams, lakes, lagoons, underground waters and tidal waters. The Clean Waters Act 1970, makes provision for the classification of waters according to their use. For more information on the Commission, the Clean Waters Act and the State Pollution Control Commission Act, see Chapter 11, "Land Use".

INTERSTATE WATER AGREEMENTS

RIVER MURRAY WATERS AGREEMENT

The Murray River forms part of the border between New South Wales and Victoria. It is about 2,530 kilometres in length, of which 650 kilometres are in South Australia and flows from its source at the head of the Indi River in the Snowy Mountains into the sea off the South Australian coast.

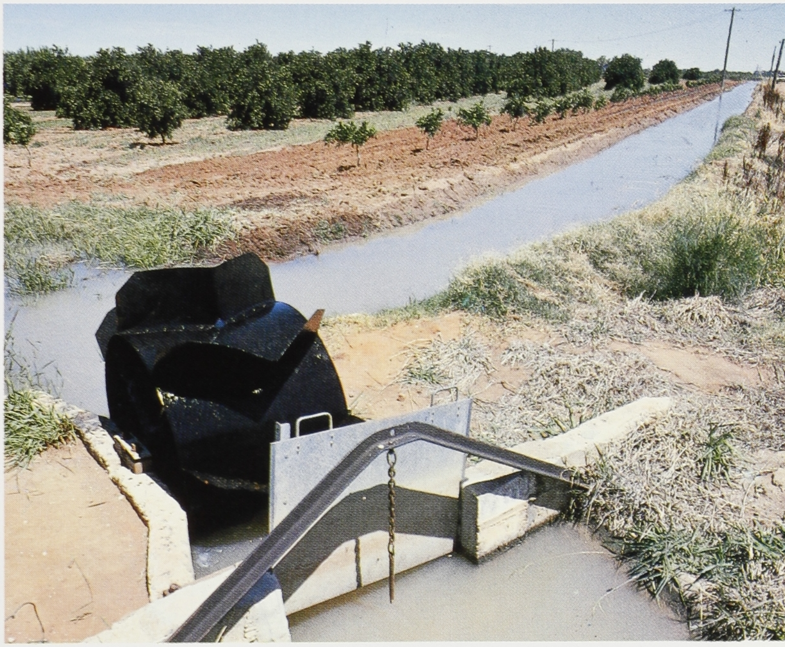
The regulation of the waters of the Murray River for the benefit of the States concerned — New South Wales, Victoria, and South Australia — is exercised by the River Murray Commission in terms of the River Murray Waters Agreement between these States and the Commonwealth Government. The original Agreement was ratified in New South Wales by the River Murray Waters Act 1915. This Act was replaced by the River Murray Waters Act 1983, which introduced legislation to increase the role of the River Murray Commission to enable it to consider water quality, recreation and environmental issues in the management of the Murray River.



Left: Busby's Bore, watercolour by C.H. Woolcott. A tunnel, designed by John Busby, was completed in 1837 to convey water from the Lachlan Swamps (the remainder of which are now the lakes in Centennial Park) to Hyde Park South. From there a pipeline ran to a point near the intersection of Park and Elizabeth Streets and water was conveyed from here by cart. After 1844, reticulation pipes to houses were installed in some areas with an annual charge of 5 shillings per room. Busby's Bore replaced the contaminated Tank Stream as the primary source of water for Sydney.

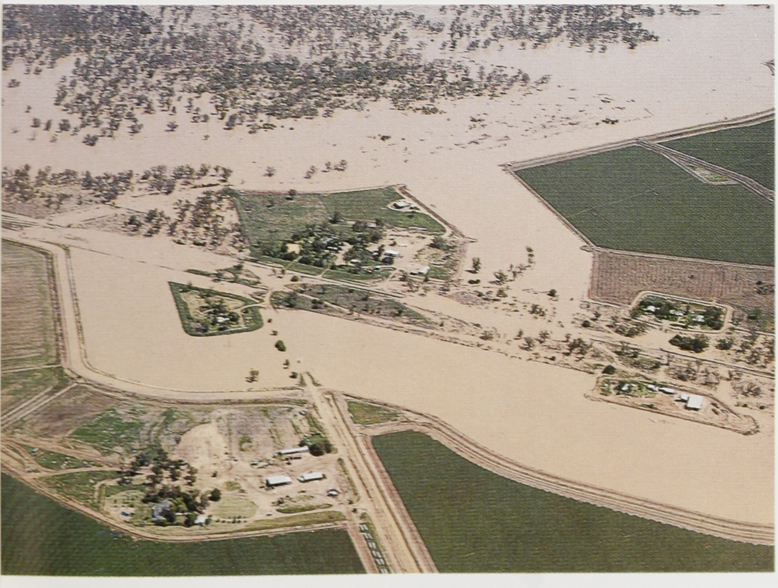
Mitchell Library, State Library of New South Wales

Right: Dethridge wheel in the Murrumbidgee Irrigation Area. Water supplied to irrigation farms is measured by a Dethridge wheel, named after its inventor J.S. Dethridge, past Chief Engineer of the Victoria State Rivers and Water Supply Commission. A Dethridge outlet is installed where the property boundary meets the supply channel. A sliding door controls the flow rate of water activating the wheel. Each revolution of the wheel delivers a known quantity of water and a simple revolution counter records the total amount of water delivered. To ensure that there is an equitable distribution to all users, the Department of Water Resources allocates water rights to farms on the basis of irrigable area.

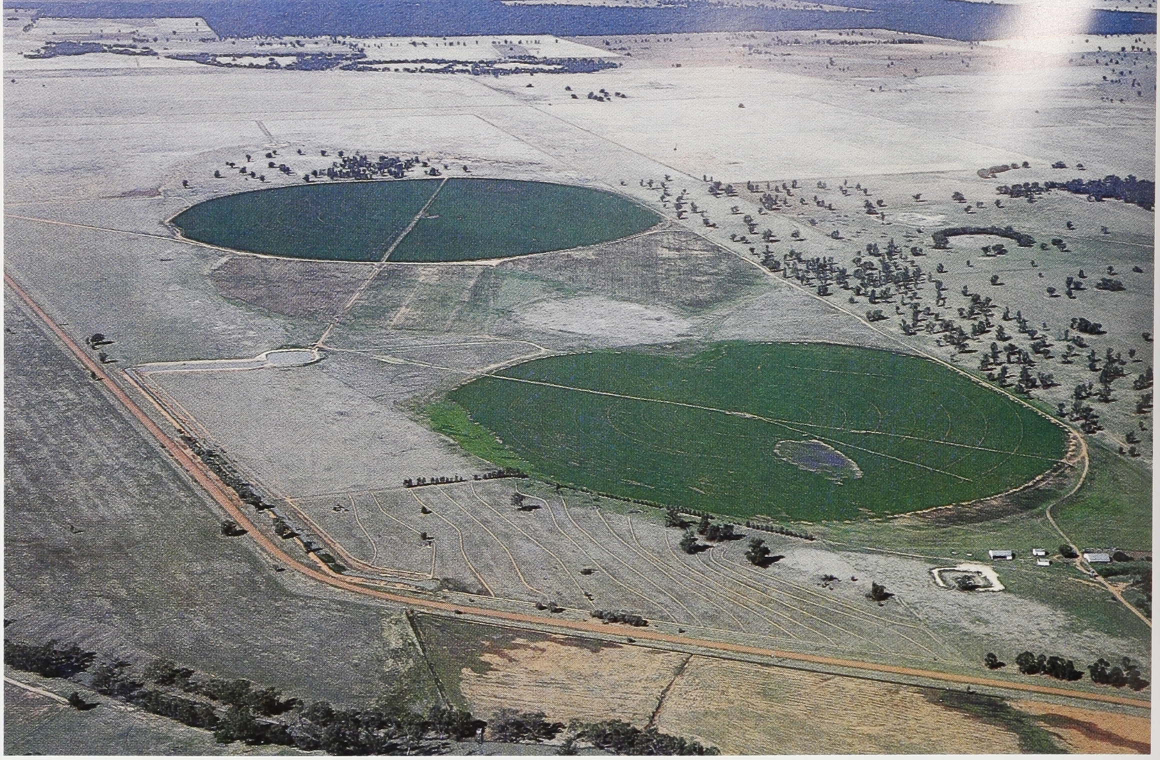


Department of Water Resources

Department of Water Resources



Left: Flood mitigation and control works undertaken by the Department of Water Resources seek to minimise the damage caused by flooding and to harness excess water for irrigation purposes. This photograph shows the protection provided to a homestead and to crops by levees during a flood.

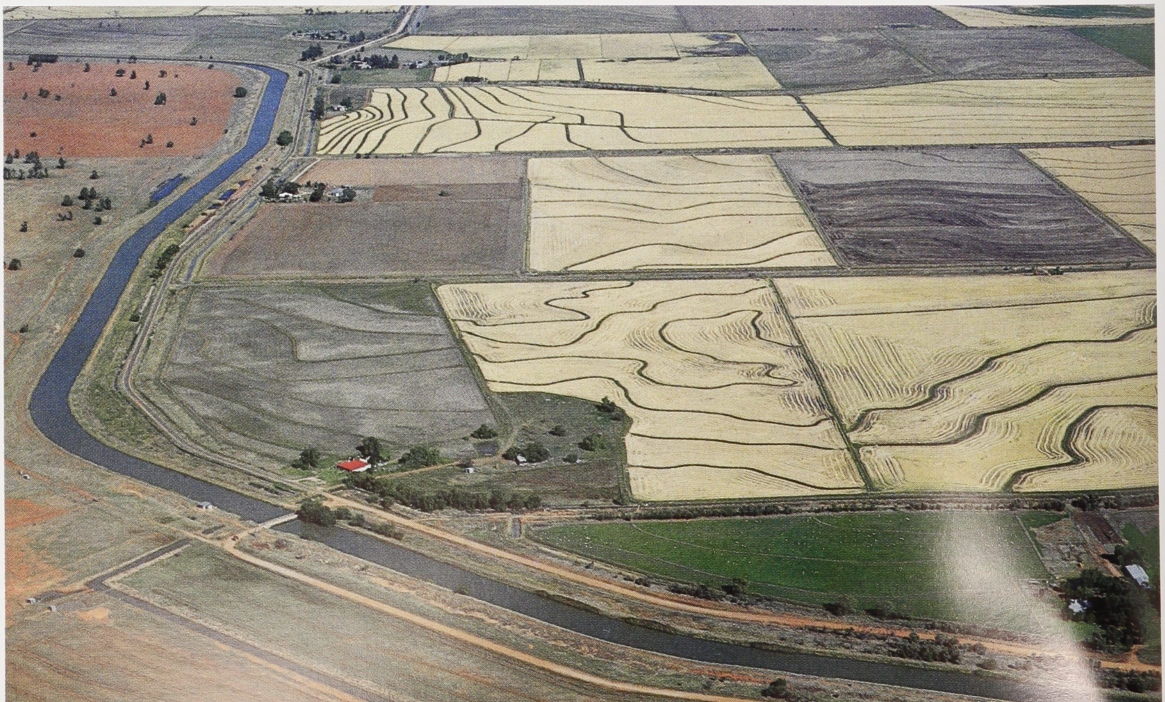


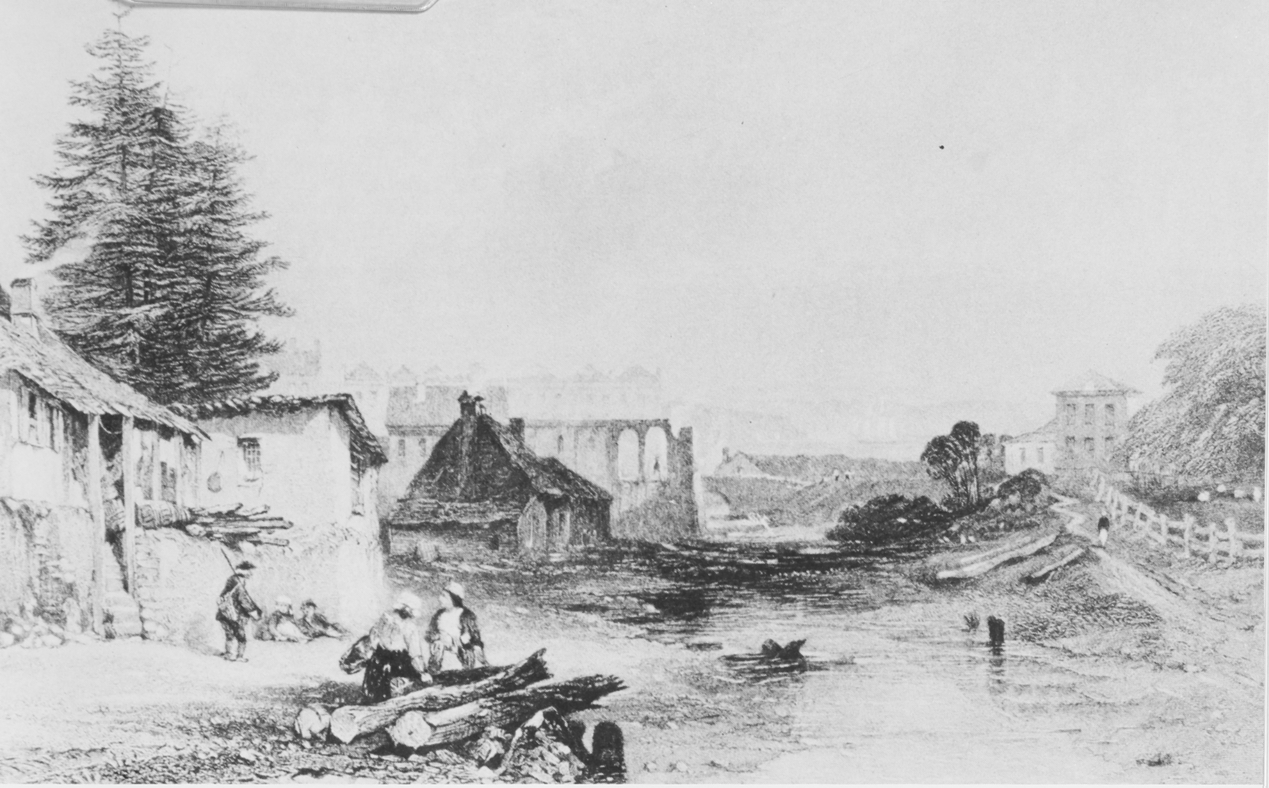
Department of Water Resources

Irrigation water is utilised by a number of different systems. The system used depends on a number of factors including the availability and pressure of the water, the contour of the land and the type of crop or pasture to be irrigated. The photo above, from the Murrumbidgee Irrigation Area, shows centre pivot irrigation which is a more recent development. With this system, computer controlled electric motors rotate spraying spans. Travelling irrigators have also been designed to irrigate rectangular areas. Other irrigation systems include stationary sprays, furrowing or flood methods, and trickle irrigation.

Irrigation canal, Coleambally Irrigation Area in the Murrumbidgee Valley. This Area covers over 95,000 hectares and is served by a channel system from the Murrumbidgee River at Gogeldrie Weir which was completed in 1959. The establishment of the Area also involved the construction of the main canal, branch channels, levee banks and a road network to serve the newly established farms. The principal crops grown are rice and other cereals.

Department of Water Resources

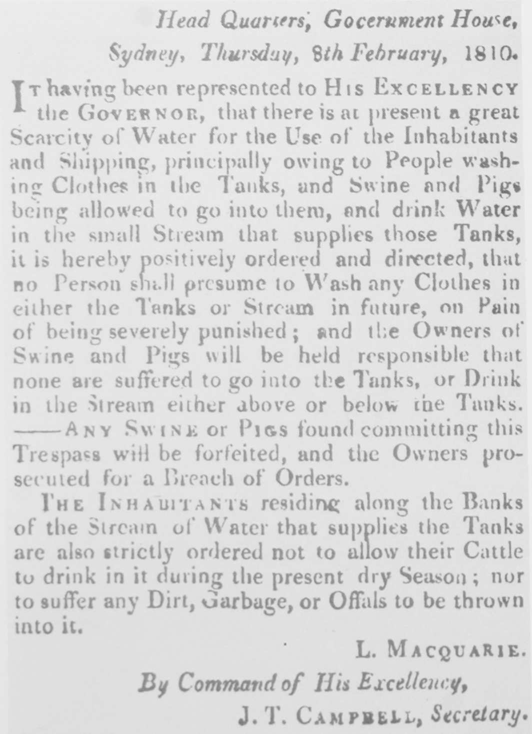




"Australia" by Edwin Carton Booth

Above: The Old Tank Stream, Sydney, engraving by Skinner Prout. The reliable supply of water provided by the Tank Stream determined Sydney Cove as the site for settlement when Captain Phillip brought the first fleet to Australia. The Tank Stream, so named because of the three tanks that were excavated in the bank and from which water was drawn, supplied water to the Colony for about 40 years until it became too polluted for most purposes. Today it is a stormwater drain beneath Sydney . *Below left:* The supply of clean, fresh water was a major concern of all the early Governors of N.S.W. and in 1810 an order of Governor Macquarie made polluting the Tank Stream a punishable offence. *Below right:* Within 12 months of the completion of Busby's Bore a drought afflicted the city and in 1838 Governor Gipps called on the citizens to pray for rain.

"Sydney Gazette" 11 February 1810



Head Quarters, Government House,
Sydney, Thursday, 8th February, 1810.

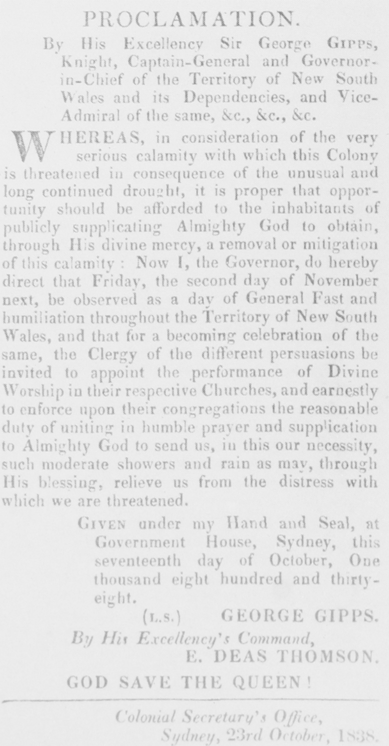
IT having been represented to HIS EXCELLENCY the GOVERNOR, that there is at present a great Scarcity of Water for the Use of the Inhabitants and Shipping, principally owing to People washing Clothes in the Tanks, and Swine and Pigs being allowed to go into them, and drink Water in the small Stream that supplies those Tanks, it is hereby positively ordered and directed, that no Person shall presume to Wash any Clothes in either the Tanks or Stream in future, on Pain of being severely punished; and the Owners of Swine and Pigs will be held responsible that none are suffered to go into the Tanks, or Drink in the Stream either above or below the Tanks. ——ANY SWINE or PIGS found committing this Trespass will be forfeited, and the Owners prosecuted for a Breach of Orders.

THE INHABITANTS residing along the Banks of the Stream of Water that supplies the Tanks are also strictly ordered not to allow their Cattle to drink in it during the present dry Season; nor to suffer any Dirt, Garbage, or Offals to be thrown into it.

L. MACQUARIE.

By Command of His Excellency,
J. T. CAMPBELL, *Secretary.*

"New South Wales Government Gazette", 24 October 1838, Mitchell Library, State Library of New South Wales



PROCLAMATION.

By His Excellency Sir George GIPPS, Knight, Captain-General and Governor-in-Chief of the Territory of New South Wales and its Dependencies, and Vice-Admiral of the same, &c., &c., &c.

WHEREAS, in consideration of the very serious calamity with which this Colony is threatened in consequence of the unusual and long continued drought, it is proper that opportunity should be afforded to the inhabitants of publicly supplicating Almighty God to obtain, through His divine mercy, a removal or mitigation of this calamity : Now I, the Governor, do hereby direct that Friday, the second day of November next, be observed as a day of General Fast and humiliation throughout the Territory of New South Wales, and that for a becoming celebration of the same, the Clergy of the different persuasions be invited to appoint the performance of Divine Worship in their respective Churches, and earnestly to enforce upon their congregations the reasonable duty of uniting in humble prayer and supplication to Almighty God to send us, in this our necessity, such moderate showers and rain as may, through His blessing, relieve us from the distress with which we are threatened.

GIVEN under my Hand and Seal, at Government House, Sydney, this seventeenth day of October, One thousand eight hundred and thirty-eight.

(L.S.) GEORGE GIPPS.

By His Excellency's Command,
E. DEAS THOMSON.

GOD SAVE THE QUEEN!

Colonial Secretary's Office,
Sydney, 23rd October, 1838.

Left: Irrigation in the Murrumbidgee Irrigation Area was started during the first few years of this century by Sir Samuel McCaughey. He used a system of pumps, a main canal and ditches to link 322 kilometres of waterways to irrigate 16,000 hectares of land that was previously considered useless. In 1906, the State Government initiated the construction of Burrinjuck Dam, Berembed Weir and a comprehensive irrigation scheme centered at Yanco. In 1913, administration and control of the scheme, and of all other water and conservation projects in the State, were vested in the Water Conservation and Irrigation Commission, the forerunner of the Department of Water Resources. The Commission built the nucleus of the two townships of Leeton and Griffith and special inducements were offered to attract new settlers to the area. The photo shows a pioneer settler at work in the M.I.A. in 1913.

Below: A private artesian bore on Fort Bourke Station, drawing water from the Great Artesian Basin. In 1900, the largest of the two bores on that Station was 390 metres deep with a daily flow of 5.5 million litres.The flow of artesian water in N.S.W. is decreasing, mainly because of the multiplicity of bores, and use is now made of control headgear to regulate the discharge of water.

Department of Water Resources

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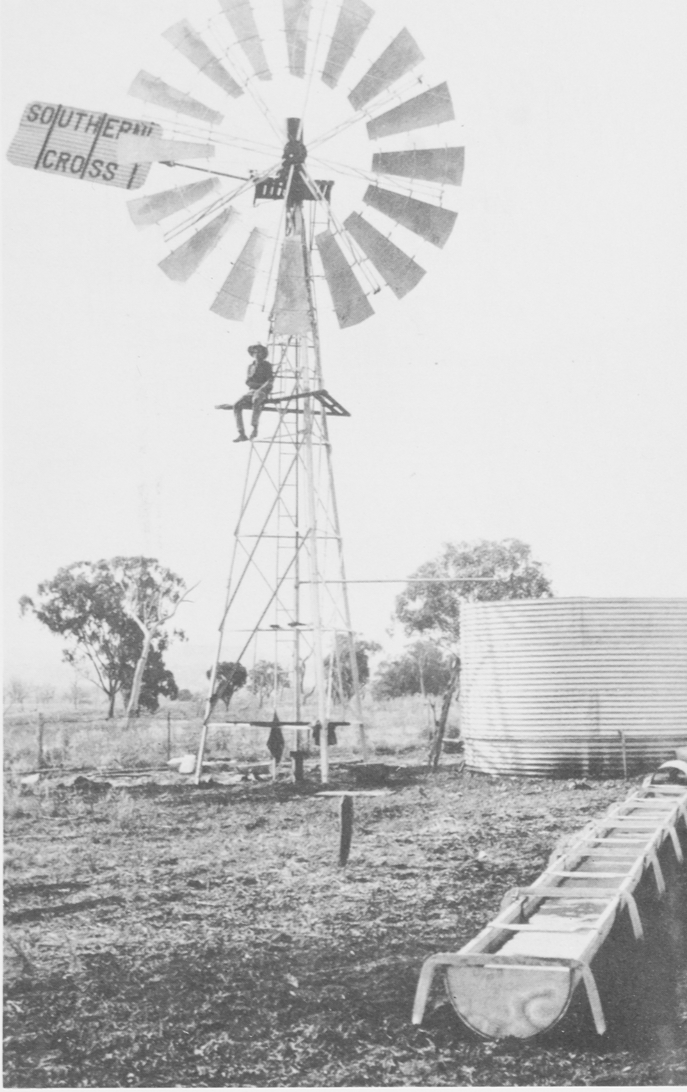
Right: Windmill c.1925, manufactured by Southern Cross. Windmills of this type were developed in the 1880's to pump sub-artesian water to unattended stock in isolated areas. Further uses for them were found and it has been estimated that at one time at least 250,000 windmills operated in Australia to pump water for livestock, for use on farms and irrigation areas, for domestic and town supplies, and in providing water for locomotives in dry areas. In the drier areas, direct-operating windmills with wind-wheels measuring 17 to 35 feet in diameter were popular while smaller geared windmills of 6 to 14 feet in diameter were used principally in coastal areas.



National Library of Australia

Below: Youngerina public bore and watering trough on the road between Bourke and Hungerford. In 1900 the bore was 50 metres deep with a daily flow of 546,000 gallons. The first free flowing artesian bore in Australia commenced in 1879 at Kallara Station near Bourke. It tapped the huge underground water reservoir of the Great Artesian Basin which covers about 23 per cent of the Australian continent. Over 1,100 bores have been drilled in N.S.W. in the Basin of which 700 are still flowing. Stock watering with artesian water has increased the carrying capacity of land in the north-western region of N.S.W. Artesian water is also used to a limited extent for town supplies and domestic purposes but has proved unsuitable for crops because of its sodium carbonate content.

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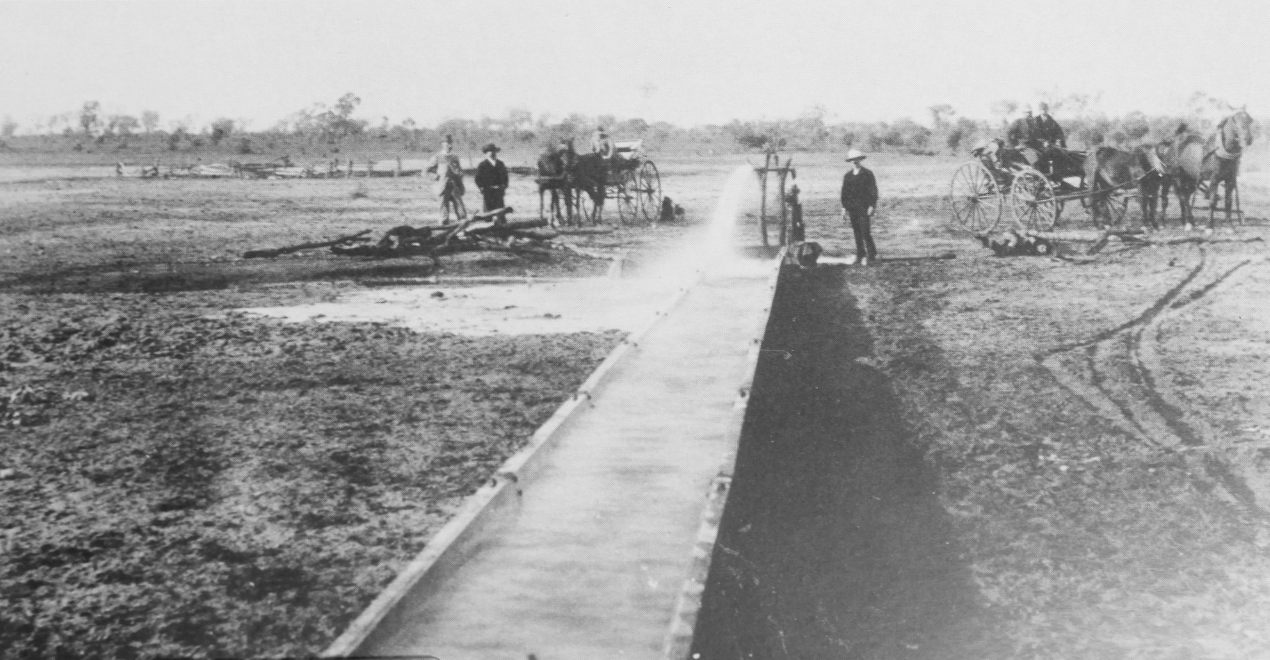

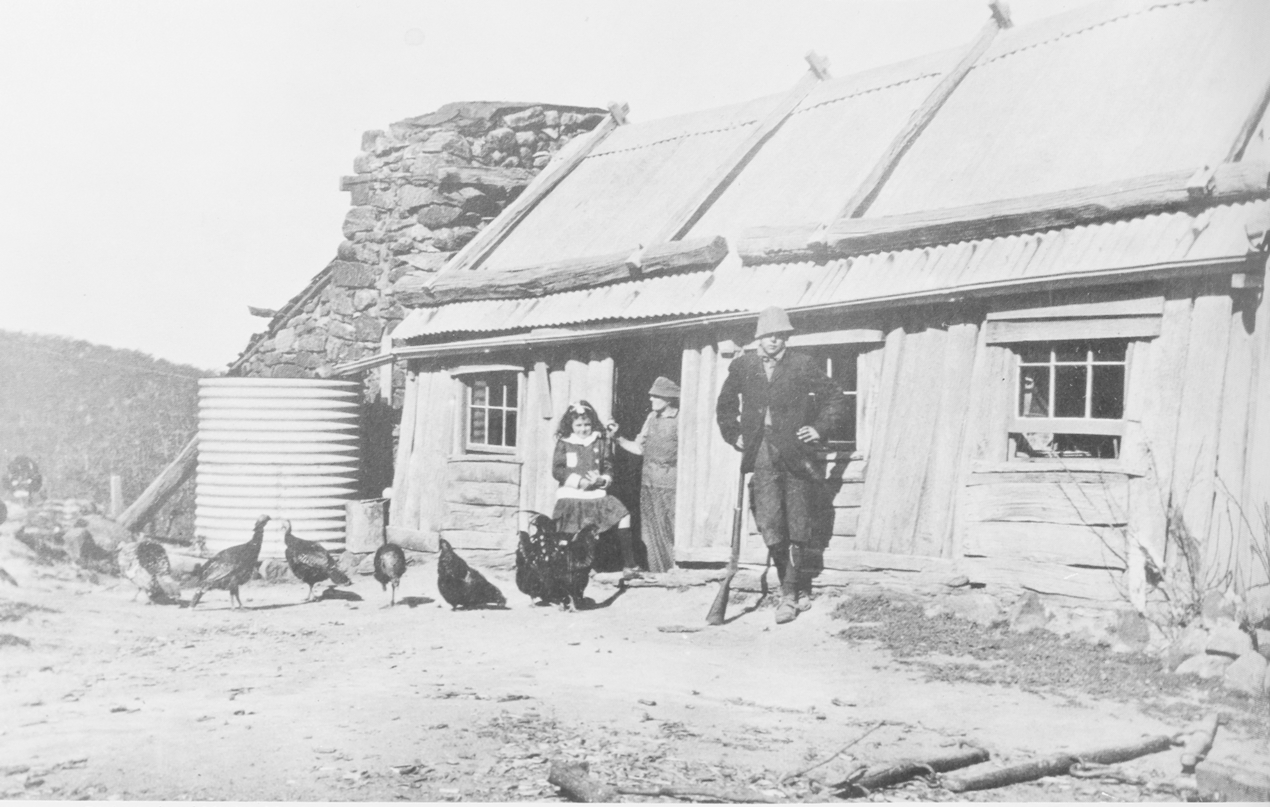

Geological and Mining Museum

Prior to the introduction of reticulated water supplies, country households had to secure their own supplies. Water was obtained from rivers, dams, underground water or artesian bores, or it was collected from roofs to fill brick lined wells or galvanised iron tanks such as the one used by the Lithgow family (above). The photo below, taken at Goulburn about 1880, shows a well and pump. Some households installed tanks inside the house which were filled by pumping water from outside wells. Under the Country Water Supply and Sewerage Act of 1880, the State government made advances to local authorities to provide adequate and safe water supplies. Under this scheme, works were constructed at Goulburn in 1883, with a steam driven Appleby Beam Engine to drive the pumps, and at Lithgow in the mid 1890's.

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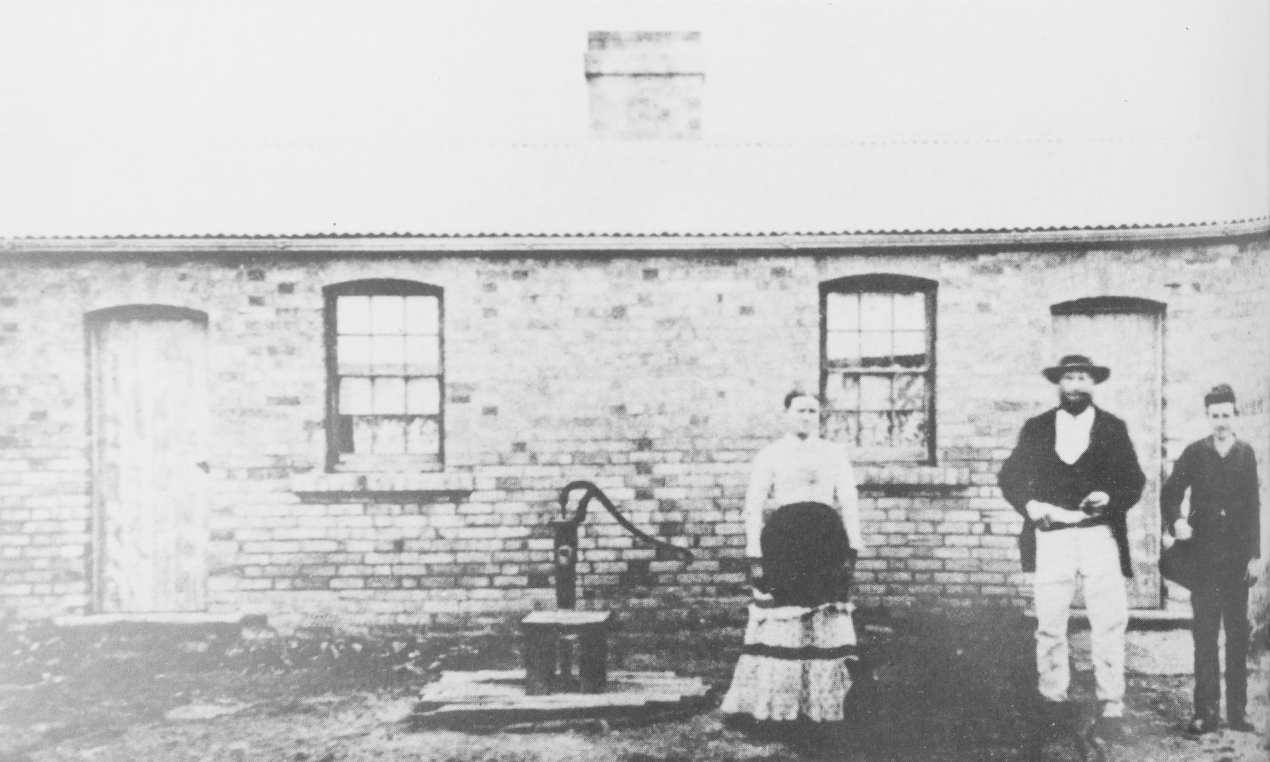


SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME

The Snowy Mountains Scheme is a hydro-electric and irrigation project. Water, diverted from streams and rivers rising on the eastern side of the Great Dividing Range at high elevation, is used, in the course of its diversion by means of aqueducts and tunnels, to operate power stations with a generating capacity of 3,740,000 kW. The waters finally discharge at a low elevation and flow through the Murrumbidgee and Murray River systems on the western side of the Range for use in irrigation.

The Scheme provides approximately 2,360,000 megalitres per annum of additional water, of which 1,380,000 megalitres goes to the Murrumbidgee and 980,000 megalitres to the Murray. Almost half of the additional water is gained from regulation (whereby water is stored and subsequently released for summer irrigation), with the remainder being gained as a result of diversions.

NEW SOUTH WALES — QUEENSLAND BORDER RIVERS AGREEMENT

The waters of the Dumaresq, Macintyre, and Barwon Rivers are controlled by the Dumaresq-Barwon Border Rivers Commission, established under the New South Wales — Queensland Border Rivers Act 1947. Within New South Wales the scheme is administered by the Department of Water Resources. The agreement provided for the construction of the Glenlyon Dam on Pike Creek in Queensland and associated works and regulators. The Dam, which was completed in 1976, has a storage capacity of 261,000 megalitres.

AGRICULTURAL IRRIGATION SCHEMES

The following table shows the area of land irrigated during recent years in Irrigation Areas and Irrigation Districts and through licensed diversions. A map depicting irrigation schemes and other water resource activities appears at the end of this Chapter.

Area of Land *(a)* Irrigated, N.S.W.
(*Source*: Department of Water Resources)
(Hectares)

System	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Irrigation Areas	175,118	182,430	161,089	156,952	185,318	190,552
Irrigation Districts	270,058	272,672	245,199	242,690	297,467	303,633
Licensed diversions	340,119	337,221	295,994	310,263	325,498	442,094
Total area irrigated	**785,295**	**792,323**	**702,282**	**709,905**	**808,283**	**936,279**

(a) Excludes "Flood Control and Irrigation Districts" and "Irrigation Trusts".

IRRIGATION AREAS

Irrigation Areas are basically areas of Crown land which have been subdivided into farms to which water is made available for intensive irrigation and for stock and domestic purposes. The Crown acquires lands for Irrigation Areas, provides all works of water supply, access and (usually) drainage, fixes rentals and purchase prices, and controls all land transactions. Water rights are allotted to farms on the basis of irrigable area. There is a limitation regarding the maximum number of water rights that may be allotted to any one farm. A water right is the right to one megalitre of water annually. In some seasons quantities of water additional to the water right entitlement are available. However, because the total water available is limited, allocation schemes have been introduced to ensure the equitable distribution of the resource to all water users. Landholders in Irrigation Areas are required to pay water charges annually to cover maintenance and operation costs.

The use of irrigated lands in the State's Irrigation Areas is shown in the next table.

Area Irrigated in Irrigation Areas, 1985-86
(*Source*: Department of Water Resources)
(Hectares)

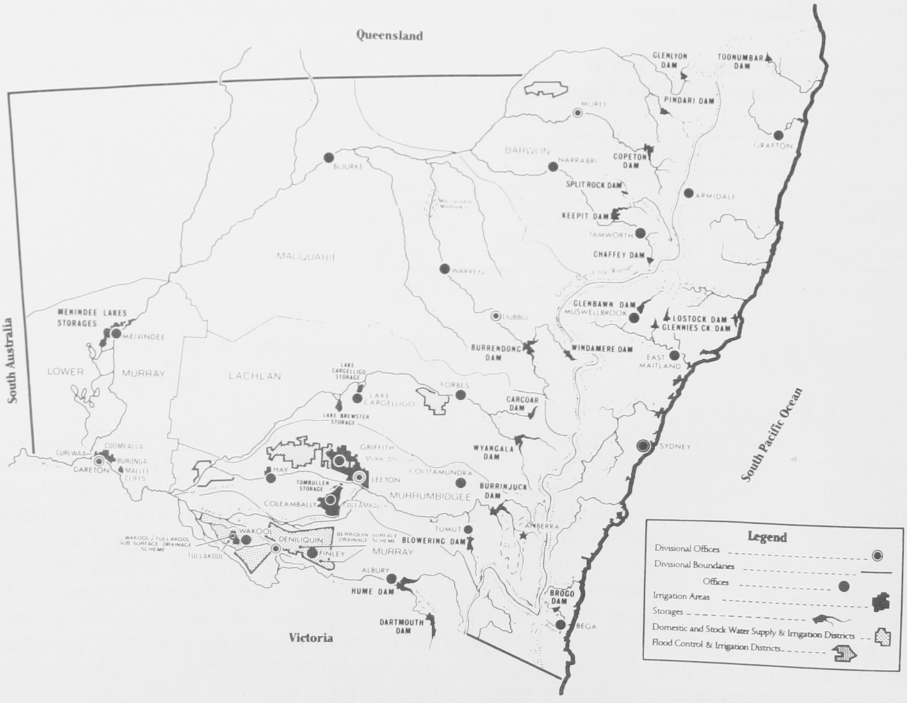
Land use	*Murrumbidgee(a)*	*Coleambally*	*Hay*	*Tullakool*	*Coomealla*	*Curlwaa, Buronga, and Mallee Cliffs*	*Total*
Rice	26,635	21,074	—	1,115	—	—	48,824
Other cereals	31,137	15,253	89	392	—	—	46,871
Oilseeds	2,507	1,821	—	—	—	—	4,328
Vines	4,654	46	—	—	2,031	363	7,094
Orchards	7,405	155	—	—	538	775	8,873
Vegetables	4,198	393	—	—	6	164	4,761
Lucerne	903	118	17	—	—	57	1,095
Fodder crops	1,968	694	31	40	—	—	2,733
Pastures	26,840	14,252	836	1,004	6	45	42,983
Fallow and miscellaneous	15,258	7,167	—	553	12	—	22,990
Total area irrigated	**121,505**	**60,973**	**973**	**3,104**	**2,593**	**1,404**	**190,552**

(a) Includes small areas outside the Irrigation Areas supplied with water under special agreements.

IRRIGATION DISTRICTS

Irrigation Districts are created from a group of existing privately-owned holdings to which the Department of Water Resources provides water for domestic and stock use and for irrigation. The water supply works are constructed, maintained, and operated by the Department.

These Districts differ from Irrigation Areas in that the existing ownership of the land is not disturbed. The Department has no control over the land which may be transferred or otherwise dealt with by the owner, although in cases of subdivision the Department fixes water rights to the subdivided portions. Water rights in irrigation districts are allotted to holdings on the same basis as those in Irrigation Areas, and landholders in these districts are also required to pay water charges annually to cover maintenance and operation costs.


Queensland
South Australia
Victoria
South Pacific Ocean
GLENLYON DAM
TOONUMBAR DAM
PINDARI DAM
MOREE
GRAFTON
BARWON
NARRABRI
COPETON DAM
SPLIT ROCK DAM
ARMIDALE
KEEPIT DAM
TAMWORTH
CHAFFEY DAM
BOURKE
MACQUARIE
WARREN
GLENBAWN DAM
MUSWELLBROOK
LOSTOCK DAM
GLENNIES CK. DAM
DUBBO
BURRENDONG DAM
WINDAMERE DAM
EAST MAITLAND
MENINDEE LAKES STORAGES
MENINDEE
LOWER
MURRAY
LACHLAN
LAKE CARGELLIGO STORAGE
LAKE CARGELLIGO
FORBES
CARCOAR DAM
LAKE BREWSTER STORAGE
SYDNEY
WYANGALA DAM
GRIFFITH
COOTAMUNDRA
COOMEALLA
CURLWAA
BURONGA
MALLEE CLIFFS
DARETON
HAY
TOMBULLEN STORAGE
LEETON
MURRUMBIDGEE
BURRINJUCK DAM
COLEAMBALLY
TUMUT
CANBERRA
WAKOOL / TULLAKOOL SUB SURFACE DRAINAGE SCHEME
WAKOOL
DENILIQUIN
BERRIQUIN SURFACE DRAINAGE SCHEME
BLOWERING DAM
TULLAKOOL
FINLEY
MURRAY
ALBURY
HUME DAM
BROGO DAM
BEGA
DARTMOUTH DAM
Legend
Divisional Offices
Divisional Boundaries
Offices
Irrigation Areas
Storages
Domestic and Stock Water Supply & Irrigation Districts
Flood Control & Irrigation Districts

The use of irrigated lands in the State Irrigation Districts is illustrated in the following table.

Area Irrigated in Irrigation Districts, 1985-86
(*Source:* Department of Water Resources)
(Hectares)

Land use	*Berriquin*	*Wakool*	*Deniboota and Denimein*	*Benerem-bah*	*Other Murrum-bidgee Districts(a)*	*Jemalong and Wyldes Plains*	*Total*
Rice	22,287	9,750	11,670	7,819	2,733	—	54,259
Other cereals	30,070	8,239	4,712	10,802	8,661	5,461	67,945
Oilseeds	4,630	2,030	136	1,583	598	912	9,889
Vines	31	—	—	—	—	—	31
Vegetables	1,907	214	70	—	5	—	2,196
Lucerne	3,659	605	466	329	385	4,350	9,794
Fodder crops	2,104	2,092	185	324	871	200	5,776
Pastures	70,062	19,207	14,624	11,755	8,035	7,786	131,469
Fallow and miscellaneous	3,044	4,458	5,431	4,804	4,537	—	22,274
Total area irrigated	**137,794**	**46,595**	**37,294**	**37,416**	**25,825**	**18,709**	**303,633**

(a) Tabbita, Wah Wah, and Gumly Districts.

FLOOD CONTROL AND IRRIGATION DISTRICTS

In Flood Control and Irrigation Districts, works are constructed by the Department of Water Resources for controlling or partly controlling floods and for supplying water for irrigation by controlled flooding. Landholders who benefit by the works pay rates levied by the Department.

WATER AND IRRIGATION TRUST DISTRICTS

Trust districts may be constituted for domestic and stock water supply, for town water supplies, for irrigation, and for flood prevention or control. The necessary works are constructed or acquired by the Department of Water Resources, and are then transferred to trustees to administer. The trustees in each district comprise persons elected by the occupiers of land within the district and a representative of the Department. The levy rates, assessed on the basis of the area of land benefited, are to repay the cost of the works by instalments, and to meet the cost of operating and maintaining the works.

LICENSED DIVERSIONS

The Department of Water Resources may authorise landholders to divert water from rivers and lakes for the irrigation of individual holdings or for joint irrigation schemes. The authorities are issued, usually for a period of five years, on payment of a fee related to the area of land to be irrigated. The Department may also issue licences authorising the construction of private works for water conservation, water supply, drainage, and the prevention of flooding.

FARM WATER SUPPLIES

Under the Farm Water Supplies Act 1946, individual farmers or groups of farmers may be assisted to provide or improve water supplies for domestic, stock, or irrigation purposes and to prepare land for irrigation. The Department of Water Resources, the N.S.W. Department of Agriculture and the Soil Conservation Service are authorised by the Act to provide technical assistance, to provide designs and estimate costs for proposed works and (at the request of farmers) to carry out the works. The Irrigation Agency of the State Bank is authorised to receive and approve or refuse applications for advances for approved works. This activity of the Bank is described in more detail in the subdivision "Provision of Finance to the Agricultural Industry" in Chapter 16 "Agriculture".

WATER STORAGE

The principal river systems and their main dams, lake storages (the storage capacity of the dams and lake storages are shown in megalitres), and major weirs associated with conserving, diverting, or regulating water used for agricultural purposes in New South Wales are:

Brogo System. Brogo Dam (9,000).
Darling System. Menindee Lakes Storage (1,794,000).
Gwydir System. Copeton Dam (1,364,000); Tareelaroi, Boolooroo, and Combadello Weirs.
Hunter System. Glenbawn Dam (870,000); Lostock Dam (20,000); and Glennies Creek Dam (283,000).
Lachlan System. Wyangala Dam (1,220,000); Carcoar Dam (35,800); Lake Brewster (153,000); Lake Cargelligo (35,900); and Jemalong Weir.
Macquarie System. Burrendong Dam (1,677,000); Windamere Dam (368,000); Warren, and Marebone Weirs.
Murray System. A share of Hume Dam (3,038,000), and Dartmouth Dam (4,057,000) is allocated for New South Wales. Other works include Yarrawonga, Torrumbarry, Euston, Mildura, and Wentworth Weirs.
Murrumbidgee System. Blowering Dam (1,628,000); Burrinjuck Dam (1,026,000); Tombullen Storage (11,200);
Berembed, Redbank, Maude, Balranald, Yanco, Gogeldrie, and Hay Weirs.
Namoi System. Keepit Dam (423,000); Mollee, Gunidgera, and Weeta Weirs.
Peel System. Chaffey Dam (61,800).
Richmond System. Toonumbar Dam (11,000).
Severn System. Pindari Dam (37,500).

GROUNDWATER

The search for, and surveillance of, groundwater is an important activity of the Department of Water Resources. There are approximately 120,000 water bores and wells in the State. The largest usage is for irrigation (about 90,000 hectares are irrigated) while about 160 towns use groundwater for all or part of their water supply.

The most important groundwater-bearing formations are the unconsolidated sediments of the major inland river systems.

Some beach and dune sand deposits near the coast also contain important groundwater resources. Examples are the Tomago Sandbeds in Newcastle and the Botany Sandbeds in Sydney.

There are several major sedimentary basins in the State in which groundwater is stored in porous rocks. The most important of these is part of the Great Artesian Basin, which occupies about 23 per cent of the Australian continent and extends into the north and north-west of the State. Most is used for stock watering purposes but some is used for town water supply. The Department of Water Resources monitors the discharge of artesian bores as a conservation measure.

Groundwater can also be found in fractured crystalline rocks such as basalt, granite and slate but yields from individual bores are usually quite low. Nevertheless, extensive use is made of groundwater from this source for stock and domestic water supplies on rural properties in large areas of the State.

FURTHER REFERENCES

A.B.S. Publications (N.S.W. Office): *Agricultural Land Use and Selected Inputs* (Catalogue No. 7411.1).

Other Publications: Annual Reports of the Department of Water Resources (previously the Water Resources Commission); Public Works Department; Snowy Mountains Hydro-electric Authority; River Murray Commission; Department of Resources and Energy; Metropolitan Water Sewerage and Drainage Board; Hunter District Water Board; and State Pollution Control Commission. *The First National Survey of Water Use in Australia*, published for the Department of Resources and Energy on behalf of the Australian Water Resources Council by the Australian Government Publishing Service (1981).

14

TRANSPORT AND COMMUNICATION

SHIPPING

CONTROL OF SHIPPING

The Commonwealth Parliament is responsible for legislation relating to trade and commerce with other countries and between the States. It is also responsible for navigation and shipping, quarantine, and the administration and maintenance of lighthouses, lightships, beacons and buoys.

Overseas and interstate navigation and shipping are regulated under the (Commonwealth) *Navigation Act 1912*, and intrastate shipping within New South Wales under the (State) Navigation Act 1901. These Acts embody the rules of the International Convention for Safety of Life at Sea and the International Load Line Convention.

Under the (Commonwealth) Navigation Act the Commonwealth Government is responsible for trading ships on interstate or overseas voyages. These include vessels used to carry goods and/or passengers on a commercial basis. The Act does not apply to

- Trading ships or Australian fishing vessels engaged on intrastate voyages
- Vessels using inland waterways
- Pleasure craft

Under the Navigation Act, all ships involved in coastal trade must be licensed. Licensees of these ships are obliged to pay seamen at the current wage rates ruling in Australia. Foreign vessels must also comply with the same crew manning and accommodation conditions that are imposed on those registered in Australia.

The pilotage service in New South Wales is administered under the (State) Pilotage Act 1971. The only relevant provision in the (Commonwealth) Navigation Act is the section which specifies the liability of the owner and master of a ship under pilotage.

Although seaboard quarantine is administered by the Commonwealth Government, the State Government provides assistance in implementation of the laws relating to animal and plant quarantine. Imported animals or plants may not be landed without a permit granted by a quarantine officer.

Control and administration of the trading ports of New South Wales is vested in the Maritime Services Board of New South Wales, which is described later in this section. Advisory Committees advise the Board in respect of Newcastle, Port Kembla and the Clarence River.

Australian Shipping Commission

The Commission, constituted under the *Australian Shipping Commission Act 1956*, operates the merchant shipping service owned by the Commonwealth Government and trades under the name "The Australian National Line" (ANL). The Commission is responsible to the Minister for Transport and is empowered to establish and operate both interstate and overseas shipping services for the carriage of freight.

As part of its operations in New South Wales, ANL operates a container terminal with three "roll on/roll off" berths at Port Botany. The terminal is used by ships owned by ANL and other shipping lines engaged in coastal and overseas shipping services.

Manuscript of this section prepared in August 1987.

STATISTICS OF SHIPPING

The shipping statistics shown in the following table were compiled by the Australian Bureau of Statistics from information provided by shipping companies or their representatives to Customs Houses at each port in New South Wales.

The collection deals entirely with international voyages and excludes coastal cargo movement.

The scope of the collection includes all vessels except the following: naval vessels; yachts and other pleasure craft; foreign fishing vessels that neither load nor discharge cargo; geophysical and oceanographic research vessels; off-shore oil rigs and vessels servicing them; and other vessels of 200 net tonnes and under.

The unit of quantity used in the following two tables to measure cargo is the *revenue tonne*. This is the unit predominantly used in the shipping industry and is the basis on which freight is levied. It may be measured by mass (tonnes) or volume (cubic metres). Revenue tonne statistics are consequently a combination of mass and volume units and should be used with care.

Vessel calls show the number of port visits an overseas vessel makes in New South Wales. For example, an overseas vessel which arrives direct in Newcastle and makes a further call in Sydney before it departs for an overseas port from Port Kembla is counted as one arrival call and one departure call for each of the three ports.

Overseas Cargoes

New South Wales overseas trade is mainly conducted from Port Jackson, Botany Bay, Newcastle, and Port Kembla. The following table shows overseas cargo discharged and loaded at each of these ports and "other" ports in New South Wales in the last four years.

Overseas Cargo Discharged and Loaded at N.S.W. Ports

	Cargo discharged				*Cargo loaded*			
		Total cargo (revenue tonnes)(a)				*Total cargo (revenue tonnes)(a)*		
Year ended 30 June	*Vessel calls*	*Container cargo (b)*	*Other cargo*	*Total cargo*	*Vessel calls*	*Container cargo (b)*	*Other cargo*	*Total cargo*
Port Jackson								
1983	1,187	1,212,667	2,055,531	3,268,198	1,200	556,974	4,999,263	5,556,237
1984	1,263	1,531,909	2,142,034	3,673,943	1,268	686,235	5,748,057	6,434,292
1985	1,440	1,715,217	3,146,365	4,861,582	1,457	621,104	6,189,636	6,810,740
1986	1,379	1,490,275	2,336,876	3,827,151	1,354	680,006	7,337,522	8,017,528
Botany Bay								
1983	399	1,538,145	1,853,387	3,391,532	401	515,741	42,799	558,540
1984	443	1,731,035	1,327,315	3,058,350	411	380,654	125,981	506,635
1985	533	r1,443,599	1,467,244	2,910,843	522	352,177	136,645	488,822
1986	567	1,588,391	873,246	2,461,637	533	464,159	168,645	632,804
Newcastle								
1983	552	15,835	991,816	1,007,651	567	1,783	18,265,434	18,267,217
1984	638	1,319	1,143,226	1,144,545	646	30,622	21,800,609	21,831,231
1985	729	1,491	984,788	986,279	729	105,030	26,539,690	26,644,720
1986	725	11,750	1,241,927	1,253,677	742	230,917	28,440,025	28,670,942
Port Kembla								
1983	216	3,469	412,597	416,066	216	1,007	6,790,462	6,791,469
1984	211	—	491,827	491,827	217	105	8,104,124	8,104,229
1985	232	695	660,569	661,264	235	—	9,577,189	9,577,189
1986	229	—	414,929	414,929	226	896	8,489,789	8,490,685
Other ports *(c)*								
1983	44	-2,232	2,232	42	-876,238	876,238		
1984	52	1,000	25,522	26,522	57	2,167	875,219	877,386
1985	50	—	4,034	4,034	44	1,900	849,540	851,440
1986	55	—	5,273	5,273	57	451	863,259	863,710
New South Wales								
1983	2,398	2,770,116	5,315,563	8,085,679	2,426	1,075,505	30,974,196	32,049,701
1984	2,607	3,265,263	5,129,924	8,395,187	2,599	1,099,783	36,653,990	37,753,773
1985	2,984	3,161,002	6,263,000	9,424,002	2,987	1,080,211	43,292,700	44,372,911
1986	2,955	3,090,416	4,872,251	7,962,667	2,912	1,376,429	45,299,240	46,675,669

(a) See text preceding table. *(b)* Container cargo refers to cargo shipped in both standard international containers (20 ft. (6.1m) and 40 ft. (12.2m)) and non-standard international containers.
(c) Comprises Twofold Bay, Trial Bay, Clarence River, Richmond River and Coffs Harbour.

HARBOURS AND ANCHORAGES

The principal ports of New South Wales are Sydney (Port Jackson and Botany Bay), Newcastle, and Port Kembla. There are other ports at Twofold Bay, Trial Bay, the Clarence River, the Richmond River, and Coffs Harbour, but the shipping trade of these ports is relatively small.

Maritime Services Board of New South Wales

The Maritime Services Board of New South Wales was established under the Maritime Services Act 1935. The Board is the port and navigation authority (see later text) for New South Wales and is responsible to the Minister for Public Works and Ports. The Board is empowered to exercise its authority through the Maritime Services Act 1935, the Port Rates Act 1975, the Prevention of Oil Pollution of Navigable Waters Act 1960, the Commercial Vessels Act 1979, the Sydney Harbour Trust Act 1900, the Navigation Act 1901 and the Pilotage Act 1971. It is a corporate body comprising five members, including a part-time Chairperson, a staff-elected member and a full-time General Manager.

The Board is responsible for the development of all the State's trading ports and port facilities, the control of shipping movements within the ports, the efficient flow of cargoes through these ports, the administration and control of the commercial and recreation use of the State's waterways, and the protection of the marine environment.

The Board's port authority role comprises both port operation (e.g. allocation of berths, supervising cargo handling regulations, provision of communication services) and port development such as the dredging of channels and construction of berthing facilities. Its navigation authority encompasses the general control and regulation of water traffic, the preservation of navigable waters and waterways within the State, the provision of navigation aids, the prevention of oil pollution and the promotion of marine safety.

The tonnage and wharfage rates, rents, and other fees, etc. collected by the Board at ports are paid into a special fund from which the Board meets the cost of operating and maintaining port facilities, provides for the renewal and replacement of wharves and other port facilities, and meets charges on the capital debt of the ports.

Sydney Harbour

Sydney Harbour (Port Jackson) has a safe entrance and affords effective protection to shipping under all weather conditions. The total area of the harbour is 5,500 hectares, of which approximately half has a depth of 9 metres or more at low water. The maximum depth in any part is 47 metres at low water, and the mean range of tides is about 1.07 metres. The foreshores, which have been somewhat reduced in length by reclamations, are irregular, extend over 240 kilometres, and afford facilities for extensive wharfage.

The principal wharves are situated in close proximity to the business centre of the city, about 6 to 8 kilometres from the Harbour entrance (The Heads). Details of the location and depth of the berths as at 30 June 1986 are shown in the next table. *(Source: Maritime Services Board)*

Location of berth	*Number*	*Depth (metres)*
Woolloomooloo	5	9.3 — 12.1
Darling Harbour	6	9.2 — 11.0
Pyrmont (including passenger terminal)	10	9.1 — 10.1
Glebe Island	4	7.5 — 11.9
Sydney Cove passenger terminal	1	10.2
Balmain	1	11.6
Snails Bay (dolphins)	4	9.2 — 11.8
White Bay	4	10.5 — 11.0
Rozelle Bay (lighter berths)	6	2.7 — 6.1

Special facilities for the storage and handling of staple products such as wheat, wool, etc. are provided on the waterside. The bulk wheat terminal at Glebe Island has a storage capacity of 245,000 tonnes. At Balmain, there are two coal loading gantries with capacities of 625 tonnes per hour each. At Darling Harbour there is a 26-tonne crane, and at Woolloomooloo there are two 26-tonne cranes with grabs available for the discharge of bulk cargoes. Two container berths with two specialised cranes are available in the port area at

Glebe Island. Heavy lifts can be handled by the floating crane "Titan", which has a capacity of 150 tonnes, or by the 250-tonne crane at the fitting-out wharf adjoining the Captain Cook Graving Dock. There is also one berth at White Bay equipped with a "roll on/roll off" ramp. Berths at Pyrmont, Glebe Island, White Bay and Balmain are connected to the State railway system.

A Port Operations and Communications Centre, which is housed in a reinforced concrete tower 87 metres above sea level at Millers Point, accommodates personnel and equipment involved in port traffic management control and the Board's general radio communication system.

Shown below is the number and gross registered tonnage of vessel arrivals into Port Jackson during the last six years. *(Source: Maritime Services Board)*

Year ended 30 June	*Vessels (number)*	*Gross registered tonnage*
1981	2,301	26,208,445
1982	2,364	25,965,717
1983	2,133	23,628,481
1984	2,039	23,775,284
1985	2,080	31,219,177
1986	1,962	30,230,993
Overseas	*1,305*	*24,638,206*
Interstate	*217*	*2,410,474*
Intrastate	*440*	*3,182,313*

Botany Bay

Botany Bay (Port Botany), situated about 18 kilometres to the south of Sydney Harbour, serves as a second major port for Sydney. Port facilities for container and bulk trades, covering 260 hectares of largely reclaimed land, are located on the northern foreshore of the Bay, providing channels with a minimum depth of 14.6 metres. Crude oil and petroleum product facilities are located on the southern side, approached by a channel with a minimum depth of 12.2 metres. A specialised wharf with tank farms nearby has been constructed on the northern side for bulk liquid chemical and petro-chemical cargoes.

There are two major container terminals. The first, covering 42 hectares, with three "roll on/roll off" berths was commissioned in 1979. The second three-berth terminal covers 38 hectares and was completed in early 1982. Rail access is provided to both container terminals.

Shown below is the number and gross registered tonnage of vessel arrivals into Botany Bay during the last six years. *(Source: Maritime Services Board)*

Year ended 30 June	*Vessels (number)*	*Gross registered tonnage*
1981	597	11,200,552
1982	603	11,408,155
1983	659	12,774,223
1984	705	13,805,851
1985	752	15,190,802
1986	799	15,034,811
Overseas	*544*	*9,834,373*
Interstate	*231*	*4,722,113*
Intrastate	*24*	*478,325*

Newcastle Harbour

Newcastle Harbour (Port Hunter) lies in the course of the Hunter River about 100 kilometres by sea, or 160 kilometres by road north of Sydney. The area used by shipping is about 230 hectares, excluding the entrance to the harbour and the inner basin, which together cover an area of 65 hectares. The harbour is sufficiently landlocked to render it safe for vessels in all kinds of weather, and breakwaters have been erected to improve the entrance and to prevent the ingress of sand from the ocean beaches. Deepening of the port, allowing usage by vessels up to 120,000 dead weight tonnes (dwt), was completed in 1982. The entrance to the port is 365 metres wide. The entrance channel is 185 metres wide, and has a minimum depth of 15.2 metres.

The shipping at Newcastle is concerned mainly with the coal, iron and steel, aluminium and other heavy industries in the Hunter Valley. There are also wheat and woodchip exporting facilities.

The total length of commercial wharfage is approximately 6,000 metres, of which 1,000 metres are privately owned, whilst the remaining 5,000 metres are under the control of the Maritime Services Board. In addition to general cargo berths, special berths have been provided for handling bulk cargoes such as imports of oil, iron ore, limestone, phosphate rock, alumina, petroleum and coke, and exports principally of coal, as well as iron and steel products, aluminium, wheat and woodchips. Most wharves are serviced by rail.

The first stage of a third coal loading facility at Kooragang Island was officially opened in June 1984. The facility is able to load vessels of up to 140,000 dwt, restricted only by the channel depth of 15.2 metres. It has a nominal capacity of 8,000 tonnes per hour and a surge capacity of 10,500 tonnes per hour. Nominal stock pile capacity is 900,000 tonnes. Coal loaders are also located at the Steelworks Channel and Eastern Basin. The Steelworks Channel loader is capable of a loading rate of 7,500 tonnes per hour through three wharf-mounted ship loaders. The Eastern Basin loader has two travelling gantry coal loaders with a gross handling rate of 2,000 tonnes per hour.

A terminal elevator for the export of bulk wheat with four traversing loading heads is provided for bulk wheat loading. An alumina, petroleum and coke discharge berth became fully operational in 1983 and comprises two vacuum suction unloaders, each with a capacity of 520 tonnes per hour. A woodchip exporting facility at Kooragang Island was established in 1981.

The Maritime Services Board is assisted in the administration of Newcastle Harbour by an Advisory Board consisting of six members. The chairman of the Board is appointed by the Minister and the other members are representative of interests concerned with activities in the port.

Shown below is the number and gross registered tonnage of vessel arrivals into the port of Newcastle during the last six years. *(Source: Maritime Services Board)*

Year ended 30 June	*Vessels (number)*	*Gross registered tonnage*
1981	922	17,924,760
1982	886	18,063,020
1983	771	17,076,872
1984	823	20,664,777
1985	941	25,296,738
1986	976	26,606,605
Overseas	*778*	*21,944,288*
Interstate	*119*	*3,711,983*
Intrastate	*79*	*950,334*

Port Kembla

Port Kembla, which is situated about eighty kilometres south of Sydney, is an artificial harbour protected by breakwaters. The outer harbour has an entrance width of 305 metres and covers an area of 137.5 hectares; an inner basin with an area of 56.5 hectares is entered through a channel with a width of 164 metres leading from the outer harbour. Depths range from 15.2 metres at mean low water at the main entrance, and from 4 to 16 metres at the outer harbour berths and 9.2 to 16.25 metres at the inner harbour berths. The length of commercial wharfage is approximately 2,549 metres, of which 1,001 metres are privately owned. Some wharves are serviced by rail. Large ocean-going vessels can be accommodated, but there are no transit sheds on the wharves.

Port Kembla is the port for the southern coalfields and for the industrial area in and about Wollongong. The major commodities exported from the port are coal, coke and iron and steel, whilst iron ore, pig iron, etc, phosphatic rock and refined oil usually predominate in the tonnages discharged.

Construction of Stage 1 of a new coal loader at Port Kembla was completed in 1982. The initial capacity is 14 million tonnes per annum and the loading rate 5,000 tonnes per hour. Vessels of up to 150,000 dwt are able to load at this facility. A multi-purpose berth which has a working wharf space of 175 metres and can accommodate vessels to 150,000 dwt for laying up and repairs was completed in April 1983. Future expansion includes a new grain export terminal to be constructed in the inner harbour and a new wharf and dredging for the new terminal, which is expected to be completed in 1987.

The Maritime Services Board is assisted in the administration of Port Kembla by an Advisory Committee. The Chairman and the other members of the Committee are representative of interests concerned with activities in the port.

Shown below is the number and gross registered tonnage of vessel arrivals into Port Kembla during the last six years. *(Source: Maritime Services Board)*

Year ended 30 June	*Vessels (number)*	*Gross registered tonnage*
1981	601	13,744,616
1982	515	11,273,538
1983	453	9,696,320
1984	460	11,893,287
1985	476	12,895,655
1986	489	13,343,647
Overseas	*270*	*7,664,871*
Interstate	*205*	*5,383,376*
Intrastate	*14*	*295,400*

PORT CHARGES

Port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government under the *Lighthouses Act 1911* and the *Navigation Act 1912*, and by the State Government under the Pilotage Act 1971, the Port Rates Act 1975, and the Sydney Harbour Trust Act 1900.

Charges levied by the Maritime Services Board include fees for the survey of ships trading exclusively within the limits of New South Wales waters, pilotage fees, harbour and light rates and berthing and mooring fees. Ferry boats, hulks and launches for hire in the Port of Sydney must also pay an annual licence fee.

Harbour Rates

In addition to the above charges levied on vessel owners, harbour rates are paid by the owners of cargoes landed or shipped at the ports under the Board's jurisdiction. Goods transhipped are subject to transhipment rates. Charges are assessed on the basis of mass, volume, or capacity (weight, measurement or liquid) of the cargo, at the discretion of the Board. Passengers' luggage is exempt.

Storage Charges

To avoid congestion on the wharves, storage charges are imposed under the Wharf Management and Storage Regulation, 1978, on goods placed on a wharf and not removed within a specified period. The charges are payable, for inward goods, by the owner of the goods and for outward goods, by the owner of the vessel on which the goods are to be shipped. Goods left on a wharf for longer than three days after unloading and goods placed on a wharf for shipment more than two days before the date of shipment incur these charges (weekends and public holidays excepted). Other rates are charged for the use of areas specially provided for storage purposes.

REGISTRATION OF PLEASURE BOATS

Under New South Wales Water Traffic Regulations, vessels of nine metres or greater in length and vessels with a potential speed of 10 knots or more are required to be registered with the Maritime Services Board and pay a fee of $33 per annum. There were 103,718 vessels registered during the year ended 30 June 1986. Persons navigating such vessels at speeds of 10 knots or more are required to be licensed, the fee being $15 testing fee plus $20 for the first year and $20 per annum thereafter (187,909 licences were issued or renewed in

1985-86). A licence is also required to promote, organise, or conduct an aquatic race, display, or regatta and the fees range between $10 and $50 (595 licences were issued during 1985-86).

RIVER TRAFFIC

New South Wales has few inland waterways, and although there is some river traffic, its extent is only partly recorded. The coastal rivers, especially in the northern districts, are navigable for some distance by small sea-going vessels, although their use for navigation depends mainly on seasonal conditions. Traffic on the Darling River is intermittent.

Under an agreement between the Commonwealth Government and the New South Wales, Victorian, and South Australian Governments, a comprehensive scheme of control works in the Murray River system was designed to provide for navigation by vessels drawing 1.5 metres of water, except in times of unusual drought. The scheme is administered by the River Murray Commission, which represents the various governments concerned.

SHIPPING REGISTERS

The (Commonwealth) *Shipping Registration Act 1981*, provides for the establishment of a single, centralised Australian Shipping Register. The main purpose of the Act is to fix, for eligible ships, conditions for compulsory or voluntary registration in Australia and to grant them Australian nationality.

The Australian Shipping Register was established in Canberra in January 1982. A "home port" must be nominated when a ship is registered. Sydney, Newcastle, and Port Kembla are the only ports in New South Wales which can be home ports. Under the Act, registration is compulsory for Australian-owned commercial ships of 24 metres or more in length, except for certain government ships, fishing vessels and pleasure craft. Other Australian-owned ships, and foreign-owned ships that are demise chartered to Australian interests, may register voluntarily. At 30 June 1986, there were 2,019 ships, of which 249 were commercial ships registered with home ports in New South Wales.

SHIPBUILDING AND REPAIRING

Facilities for building, fitting and repairing ships are provided at Sydney and Newcastle and at certain other ports in New South Wales.

In Sydney Harbour, there are a number of patent slips and three large graving docks. The Captain Cook Graving Dock (the largest of the three) is capable of accommodating all but the very largest ships. The two other graving docks, the Fitzroy and the Sutherland, situated on Cockatoo Island, are leased by the Commonwealth Government to a private company.

At Newcastle, a State Government owned floating dock and ship repair facility are leased to private enterprise. An associated engineering facility may also be leased to the private sector. These facilities were previously managed by the New South Wales Government Engineering and Shipbuilding Undertaking which ceased operations in March 1987.

Privately-owned patent slips are available at some minor ports to meet the needs of vessels engaged in coastal trade.

RAILWAYS, BUSES, AND FERRIES

PUBLIC TRANSPORT AUTHORITIES

Public transport in New South Wales is controlled by two authorities: the Urban Transit Authority (U.T.A.) and the State Rail Authority (S.R.A.). Both are under the direction and control of the Minister for Transport.

The U.T.A. has the responsibility to ensure co-ordination of bus, rail, ferry, and taxi passenger services in the urban and inter-urban areas of Sydney, Newcastle and Wollongong; to operate publicly-owned buses and ferries in these areas, together with associated bus and ferry workshops; to exercise broad policy control over privately-owned public transport services operated in these areas; and to enter into contractual arrangements with private vehicle and ferry operators for the provision of private transport services.

The S.R.A. is responsible for operating all passenger and freight rail services throughout the State, providing urban and inter-urban passenger rail services in consultation with the U.T.A., and arranging for recruitment and industrial relations both for itself and the U.T.A.

The Railway Workshops Board is accountable to the S.R.A. for the management of railway workshops and consists of six members.

The structures of the U.T.A. and the S.R.A. are described in New South Wales Year Book No. 70.

RAILWAYS

Length of Railways in New South Wales

The total route length of railways open for traffic in New South Wales, at 30 June 1986, was 10,355 kilometres, and comprised 9,909 kilometres owned by the New South Wales Government, a line of 6 kilometres from St Marys to Ropes Creek and one of 47 kilometres from Broken Hill to Cockburn (South Australia) owned by the Commonwealth Government, 325 kilometres of border railways in the Riverina district connecting with Victorian railways and owned by the Victorian Government, and 68 kilometres of private railways available for general traffic.

The Sydney Metropolitan Rail System is entirely operated by electricity. It extends as far as Cowan on the northern line, Emu Plains on the western line, Macarthur on the southern line, Cronulla and Otford on the Illawarra line and Bondi Junction on the Eastern Suburbs line.

In 1949, the Government approved a plan for the electrification of lines between Sydney and Lithgow, Newcastle, Port Kembla, and Goulburn. The western line to Lithgow was completed in 1957 and the northern line was completed to Newcastle in 1984. In 1980 the electrified extension of the Illawarra line to Waterfall was integrated with the Eastern Suburbs line. The remaining section of electrification to Port Kembla opened in 1986. Currently electrification extends to Glenlee on the southern line (to Goulburn).

A new line from Ulan to Gulgong was officially opened in 1985, providing western areas of the State with more direct rail access to Newcastle.

Construction of the Maldon-Port Kembla coal line commenced in 1983. This line will provide a direct link from the western coal fields and Burragorang Valley to the coal loader at Port Kembla.

In 1985, the S.R.A. took over operation of the line from Queanbeyan, N.S.W. to Canberra, A.C.T. This was previously administered by the Australian National Railways Commission.

Railway finances bear part of the cost of concessions made for the direct benefit of primary and secondary industries. These include rebates from ordinary charges for the transport of livestock and fodder, and concessions in respect of the carriage of raw materials and the products of certain manufacturing industries which are assisted for national reasons. In 1985-86 the value of concessions borne by the railways in the carriage of livestock and goods amounted to $40.2m (almost entirely for the carriage of wheat, flour and coal), while further concessions amounting to $72.08m (including $41.6m for the carriage of wheat) were borne by State revenues.

The carriage of goods contributed 68 per cent of the total earnings in 1985-86, compared with 32 per cent from coaching, which largely comprises passenger traffic.

An analysis of the finances of the freight and passenger services provided by the State Rail Authority in 1985-86, is shown in the following table.

New South Wales Government Railways:
Finances Classified by Type of Service *(a)*, 1985-86
(*Source*: State Rail Authority)
($'000)

	Revenue				
Type of service	*Earnings*	*Government Contributions (a)(b)*	*Total*	*Expenditure (a)*	*Surplus or Deficit (—)*
Freight services	748,737	39,884	788,621	788,644	(—)23
Passenger services —					
Sydney and Newcastle urban services	237,538	149,078	386,616	386,728	(—)112
Country and interstate services	96,115	158,538	254,653	254,774	(—)121
Total passenger services	*333,653*	*307,616*	*641,269*	*641,502*	*(—)233*
Total rail services	**1,082,390**	**347,500**	**1,429,890**	**1,430,146**	**(—)256**

(a) Excludes State Government contributions to revenue of $307m and excludes expenditure on lease rental payments and on interest and other charges of $307m. *(b)* Comprises revenue supplement and contribution for superannuation.

Further particulars regarding the finances of the State Rail Authority are included in the subdivision "State Government Finance" in Chapter 22 "Public Finance".

Traffic on State Government Railways

Particulars of traffic carried by the State Government railways in the last six years are given in the next table.

New South Wales Government Railways: Traffic
(*Source*: State Rail Authority)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Passenger journeys ('000)			
Passenger journeys	**212,911**	**220,837**	**207,201**	**202,253**	**200,275**	***(a)*218,581**
			Freight ('000 tonnes)			
Coal	22,259	22,618	27,910	30,067	29,825	33,339
Wheat	5,328	4,997	2,949	4,885	6,353	7,630
Iron and steel	1,901	1,994	1,289	1,565	1,270	1,408
Containers	2,798	2,696	2,553	2,751	3,014	3,361
Other *(b)*	8,164	8,087	6,655	7,333	7,504	8,151
Total freight carried	**40,450**	**40,393**	**41,356**	**46,601**	**47,966**	**53,889**

(a) Includes 214,875 ('000) passenger journeys in Sydney and Newcastle urban services. *(b)* Includes grains other than wheat, fruit and vegetables, limestone, cement, fertilisers, petroleum products, livestock, parcels and general freight.

Employment in State Government Rail Services

The annual average number of persons employed in the State Government railways (excluding those employed on the construction of new lines) and the salaries and wages paid to them during the last six years were:

	Employees	*Salaries wages, allowances, etc. ($'000)*
1980-81	42,583	662,730
1981-82	41,607	795,313
1982-83	40,367	840,855
1983-84	40,751	881,826
1984-85	41,427	950,708
1985-86	41,071	1,003,686

Rolling Stock

At December 1986, the rolling stock of the State Rail Authority included 1,840 passenger carriages, 9,252 freight vans and wagons, 681 locomotives and other self-propelled trains, 36 road motor coaches and 9 mini coaches.

In addition, the high-speed XPT Inter-City Express passenger service, which commenced in April 1982, comprised 14 diesel-powered units and 46 carriages.

Indian Pacific Service

The regular passenger service between Sydney and Perth (the Indian-Pacific Service) is run three times a week in each direction, each trip taking 2.8 days. The service, which passes through Broken Hill (in New South Wales) and Port Pirie (in South Australia), is operated jointly by the Australian National Railways Commission, the State Rail Authority of New South Wales and Western Australian Government Railways.

Sydney-Alice Springs Service

In November 1983, a direct rail passenger service between Sydney and Alice Springs was opened. The service to Alice Springs passes through Broken Hill, Port Pirie and Tarcoola, and the route covers a distance of 3,000 kilometres. It is operated jointly by the Australian National Railways Commission and the State Rail Authority of New South Wales.

BUS SERVICES

In New South Wales, bus services are operated by the State Government in the Sydney and Newcastle districts. Private (non-government) bus services are operated in Sydney, Newcastle and other districts and are subject to regulation by the Commissioner for Motor Transport.

State Government Bus Services

The State Government bus services are administered by the Urban Transit Authority of New South Wales (see reference at the beginning of this section).

Traffic

Particulars of the passenger traffic and the distance travelled by buses in the Sydney and Newcastle districts in the last six years are given in the next table.

New South Wales Government Bus Services: Traffic *(a)*
(*Source*: Urban Transit Authority)

Year ended 30 June	*Passenger journeys ('000)*			*Vehicle kilometres ('000 kilometres)*		
	Sydney	*Newcastle*	*Total*	*Sydney*	*Newcastle*	*Total*
1981	r174,873	r17,729	r192,602	57,561	7,990	65,551
1982	r170,325	r17,015	r187,340	58,584	8,116	66,700
1983	r172,493	r15,931	r188,424	57,945	8,026	65,971
1984	172,041	15,634	187,675	57,699	8,163	65,862
1985	173,565	14,896	188,461	57,346	7,977	65,322
1986	175,471	14,837	190,308	57,704	8,610	66,314

(a) Includes charter operations.

Rolling Stock, and Employment

At 30 June 1986 the rolling stock of the State bus services consisted of 1,511 single-deck buses in Sydney, including 30 articulated buses, while in Newcastle there were 197 single-deck buses.

The number of persons employed by the Urban Transit Authority in providing bus services was 6,134 at 30 June 1986; the salaries and wages paid during 1985-86 amounted to $145.8m.

Private Bus Services

Private (non-government) bus services in the Transport Districts of Sydney Metropolitan, Newcastle and District, and Wollongong are controlled by the Transport Act 1930, and the Regulations for Public Vehicles. A licence for each privately-owned bus service must be obtained from the Department of Motor Transport (see section "Motor Transport and Road Traffic" later in this chapter). This service licence specifies the route to be traversed, the timetable to be observed, and the fares to be charged. Services are not permitted to operate in direct duplication of Government bus services. Details of the operations in the Transport Districts of Sydney Metropolitan, Newcastle and District, and Wollongong, in recent years, have been supplied by the Department of Motor Transport from figures provided by the private bus operators. These statistics are shown in the following tables.

Private Bus Services in Sydney, Newcastle, and Wollongong:
Number of Services and Vehicles in Service
(*Source*: Department of Motor Transport)

	Metropolitan Transport District		*Newcastle and District Transport District*		*Wollongong Transport District*	
At 30 June	*Number of services*	*Vehicles in service*	*Number of services*	*Vehicles in service*	*Number of services*	*Vehicles in service*
1981	199	1,578	19	141	37	169
1982	199	1,572	20	142	42	165
1983	199	1,527	20	142	42	150
1984	225	1,531	20	139	45	144
1985	237	1,541	18	142	41	150
1986	238	1,544	18	137	42	150

Private Bus Services in Sydney, Newcastle, and Wollongong: Passengers Carried and Distance Travelled (*Source*: Department of Motor Transport)

	Metropolitan Transport District		*Newcastle and District Transport District*		*Wollongong Transport District*	
Year ended 30 June	*Passengers carried ('000)*	*Distance travelled ('000 km)*	*Passengers carried ('000)*	*Distance travelled ('000 km)*	*Passengers carried ('000)*	*Distance travelled ('000 km)*
1980	66,056	33,588	3,162	4,468	9,101	6,473
1981	65,039	48,287	3,022	2,837	6,328	5,343
1982	58,364	42,611	2,814	3,665	5,994	6,301
1983	56,405	39,976	2,605	6,142	4,511	4,866
1984	54,016	36,123	2,672	5,934	3,849	4,917
1985	47,995	40,678	2,695	6,217	3,781	4,650

HARBOUR AND RIVER FERRY AND HYDROFOIL SERVICES

Ownership of the Sydney Harbour ferries is vested in the Urban Transit Authority. At 30 June 1986, the Urban Transit Authority had a fleet of 19 ferries and 5 hydrofoils operating in Sydney Harbour. The number of passenger journeys for 1985-86 was 17,650,000. In February 1983, the Urban Transit Authority commenced the operation of the Stockton to Newcastle service, utilising two chartered vessels. In 1986, two Authority ferries replaced the charter vessels which were returned to their owners. The number of passenger journeys for 1985-86 was 474,000.

The number of persons employed by the Urban Transit Authority in providing ferry and hydrofoil services was 412 at 30 June 1986; the salaries and wages paid during 1985-86 amounted to $13.2m.

Private ferry services are also operated in the ports of Sydney and Newcastle, on the Hawkesbury River, and on various other waterways of New South Wales. These ferries are certified as to seaworthiness and licensed by the Maritime Services Board. They are distinct from those which are maintained by the State Government or by municipalities or shires for the transport of vehicular traffic across rivers.

ROADS AND BRIDGES

The N.S.W. Department of Main Roads is responsible for the administration of and expenditure on main roads in the State and shares, with local government councils, the expenditure on secondary roads, developmental roads, and tourist roads. The local government councils are fully responsible for the administration of roads other than main roads within their areas.

There were approximately 205,000 kilometres of public roads in New South Wales at 30 June 1986. The Department of Main Roads had full or partial financial responsibility for 42,339 kilometres and the remaining 162,661 kilometres were the responsibility of the local government councils in whose areas they were situated.

Moneys expended by government authorities on roads in New South Wales are disbursed for the most part by the Department of Main Roads and municipal and shire councils, but some road works have been constructed by other departments and bodies.

It is difficult to determine the aggregate annual expenditure by government authorities on roads and bridges, or that of each authority, without duplication or omission. This is because various authorities frequently undertake road works in association with or as agent for others, and expend moneys provided as grants or loans by other authorities. Furthermore, expenditure on road works has not been distinguished clearly in some cases when these works were subsidiary to the designated purpose for which funds were voted and expended.

The particulars given in the following table have been compiled from annual reports and budget estimates of State Government departments and authorities and from statements of accounts and completed questionnaires for local government authorities. The figures include expenditure (from grants, revenue and loans) on construction, maintenance, administration and debt charges (interest and repayment) on loans. Where the State Government or Departments have paid for works constructed by municipal or shire councils, the expenditure is classified under the heading "Local Government" when identified as such by them. Further details of expenditure by State and Local Government authorities are given in the chapter "Public Finance".

Total Expenditure by Government Authorities *(a)* on Roads, Streets, and Bridges *(b)* in N.S.W.
($ million)

Year ended 30 June	*Net Current Expenditure (c)*			*Capital Expenditure*		
	State Government	*Local Government (d)*	*Total*	*State Government*	*Local Government (d)*	*Total*
1980	— 0.8	14.8	14.1	374.9	298.0	672.9
1981	1.7	16.1	17.8	414.0	335.1	749.2
1982	4.9	18.5	23.5	432.9	351.6	784.5
1983	11.3	— 2.1	9.2	489.9	420.0	909.9
1984	9.8	— 2.6	7.1	689.1	435.9	1,125.0
1985	8.7	— 2.9	5.8	766.6	499.8	1,266.4

(a) Includes Commonwealth Funds disbursed through State agencies. *(b)* From 1983, expenditure on street lighting is excluded, except where its provision or maintenance forms an integral part of road construction or maintenance. *(c)* Comprises current expenditure on wages, salaries and supplements and goods and services other than fixed assets and stocks; offset by fees and other charges for goods sold and services rendered. *(d)* Calendar years six months earlier.

ADMINISTRATION OF ROADS

The present system of main roads administration is regulated by the State Roads Act 1986, which also repeals the former principal act, the Main Roads Act 1924.

The Commissioner for Main Roads is responsible for the administration of the State Roads Act 1986 which provides for the construction and maintenance for those roads throughout the State which have been declared under the State Roads Act, both in country and metropolitan areas.

The Commissioner is also responsible to the New South Wales Government for maintenance of the Sydney Harbour Bridge, for the implementation of traffic management measures throughout the State, and for the disbursement of Commonwealth Government grants for local roads.

The Department of Main Roads carries out the work arising from the Commissioner's responsibilities under the Act.

Public roads may be declared as main roads on the recommendation of the Commissioner. Main roads are classified as *State Highways*, which form the principal avenues of road communication throughout the State and connect with similar avenues in other States, and *Main Roads*, which connect towns and important centres of population with the State highways and with each other. Either of these classifications may include freeway and/or controlled access road conditions, the distinguishing feature of these being that the Commissioner may limit access in order to facilitate traffic movement. The Department of Main Roads reimburses municipal and shire councils for the full amount expended by them on the construction and maintenance of proclaimed main roads, and the Department itself undertakes such work where considered necessary.

Roads which carry a substantial amount of through traffic, and thereby relieve neighbouring main roads, may be declared by the Minister to be *Secondary Roads*. The maintenance and improvement of secondary roads are the responsibility of the local councils through whose areas the roads pass; however the Department of Main Roads financially assists councils by contributing not less than half the cost of approved works on these roads.

Any road or work (including a bridge or road ferry) which the Minister considers by reason of its nature, size, location or importance should be constructed or maintained, or both, as a responsibility of the State, may be declared to be a State Work.

A road which assists to make an area accessible to tourists may be declared, by the Minister, as a *Tourist Road*. The Department of Main Roads provides financial assistance to local councils (in general, up to half the cost) for the construction and maintenance of proclaimed tourist roads, and itself undertakes such work in special cases.

Any work which facilitates the movement of motor traffic between Sydney and Newcastle or Sydney and Wollongong may be proclaimed, on the recommendation of the Commissioner, as a *Toll Work*. The cost of construction and maintenance may be recovered by the imposition of tolls on the vehicles using the works. Part of the Sydney to Newcastle Freeway, consisting of a 25.9 kilometre section from Berowra to Calga, and part of the Southern Freeway, consisting of a 22.9 kilometre section from Waterfall to Bulli Pass, have been proclaimed as toll works.

The length of roads in New South Wales which are under the control of the Department of Main Roads are shown in the following table.

to Airport 300
Airport Express
Airport Express
EXPRESS

The Airport Express (left), which operates between Circular Quay and the international and domestic air terminals at Mascot, is one of the Urban Transit Authority's special services. The demand for the service has grown to over half a million passenger journeys annually.

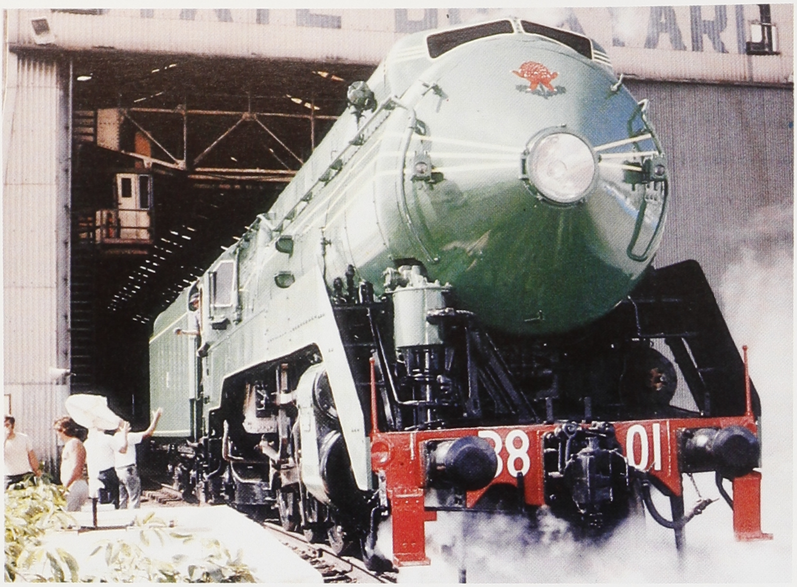
Photographs: Urban Transit Authority

The Sydney Explorer (right) has gained wide acceptance by tourists in Sydney, making stops at twenty popular tourist attractions around the city.

Sydney Explorer
PAY AS YOU ENTER

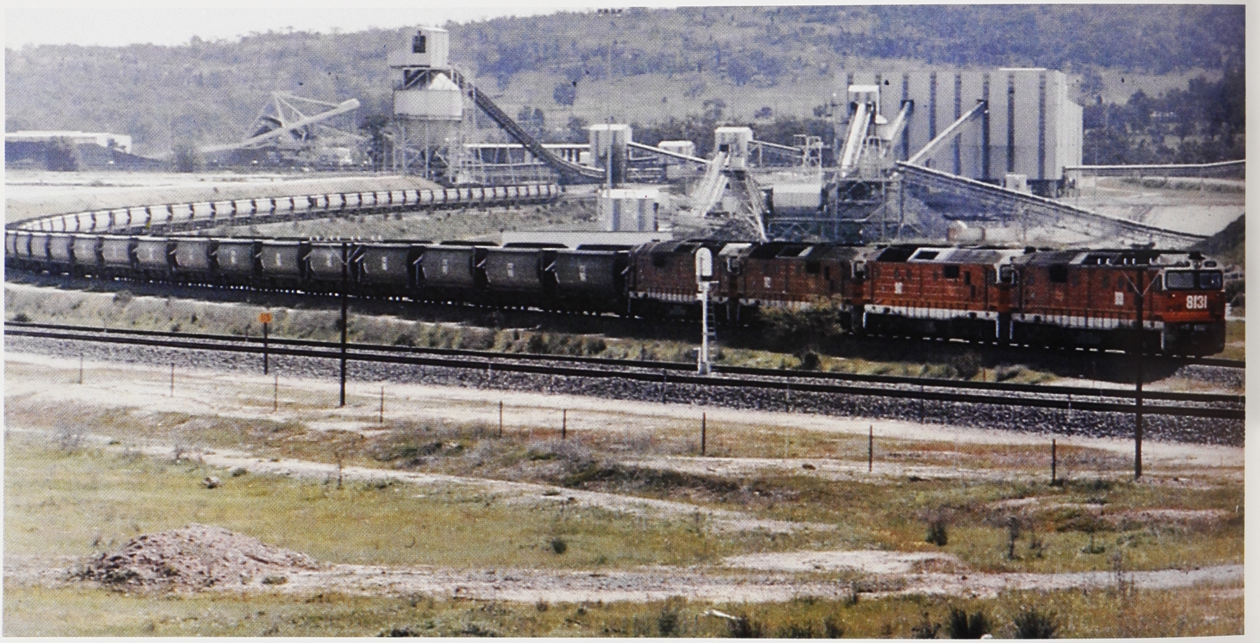
Below: The Authority operates thirty articulated buses in Sydney. They are especially suited where large numbers of people are required to be transported in a single lift. These "Bendy" Mercedes Benz vehicles have a seating capacity of 69 passengers and form part of the total Sydney and Newcastle bus fleet of over 1,700 vehicles.

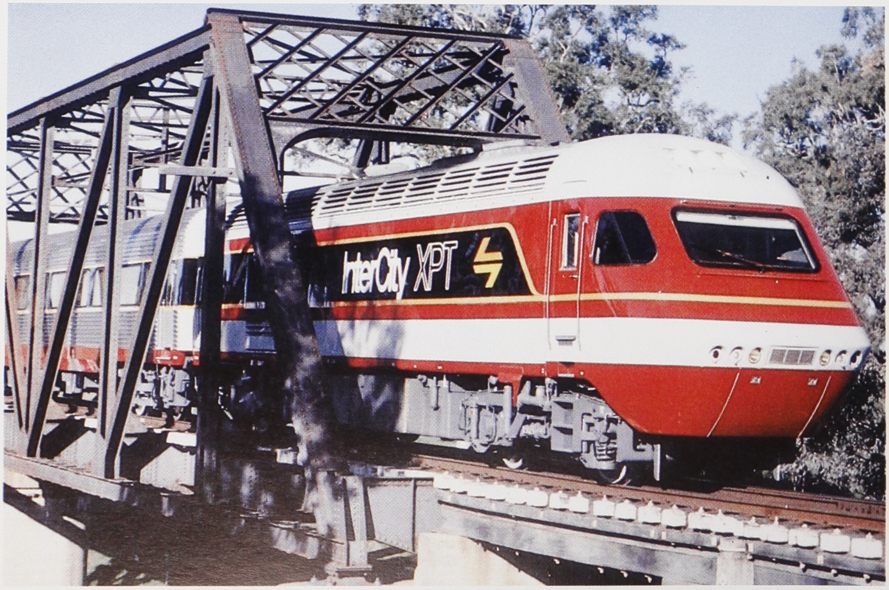
165 EXPRESS
URBAN TRANSIT AUTHORITY
2563



In 1938, the New South Wales Railways undertook the design of a new class of express passenger locomotive. The 3801 (left) was built by Clyde Engineering Company in 1943. Capable of speeds in excess of 70 m.p.h., the 38 class locomotives were Australia's fastest steam trains. They were mainly used on the northern and southern lines and, to a limited extent, on the western and south coast lines. The restoration of the 3801 by the Hunter Valley Training Company, with out-of-trade apprentices, was completed in 1986.

Photographs: State Rail Authority





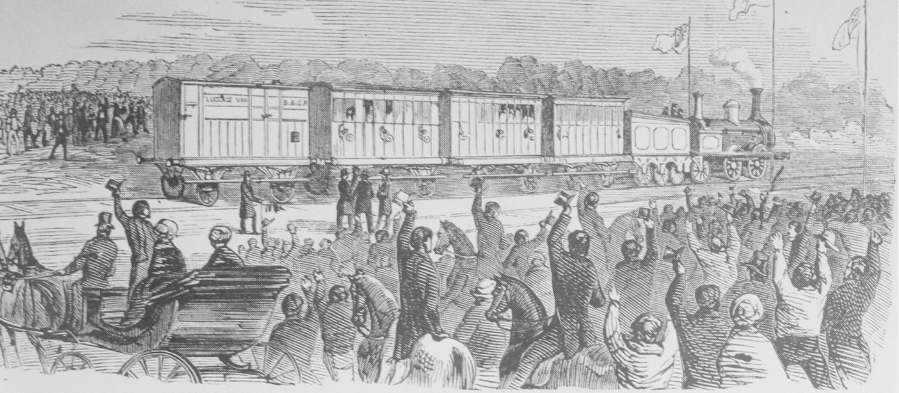
Above: The coal loader at Ulan. Completion of the 25 km Ulan-Gulgong line in 1985 linked the State's west by a more direct route to Newcastle. Journey time for freight trains has been reduced by about five hours and the easier grades enable locomotives to haul heavier trains.

Left: The XPT Inter-City express train, which commenced operations in 1982, offers country passengers a comfortable and fast journey. Capable of speeds of up to 160 kph, it is currently the fastest train in Australia and is the first to use the "push-pull concept" with a power-car (locomotive) at each end.

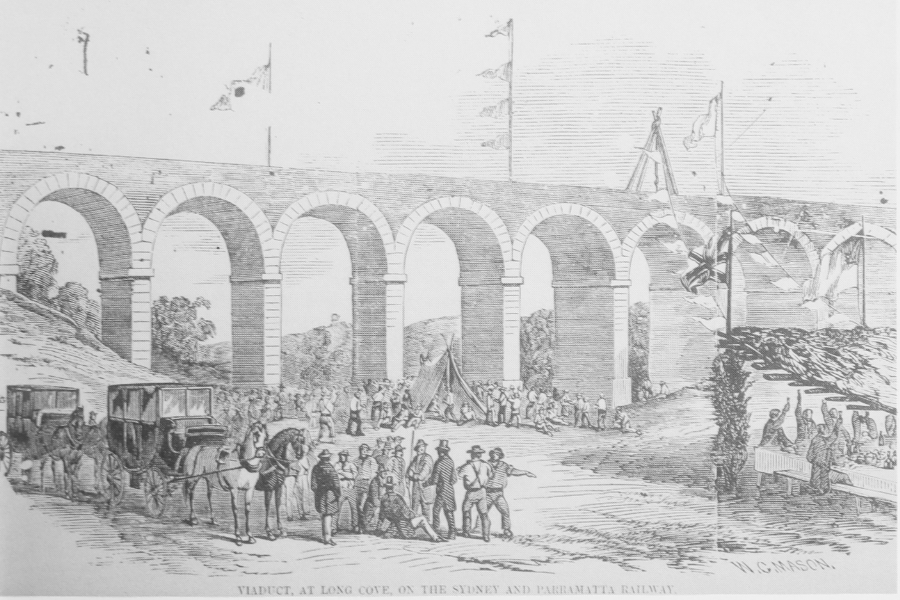
Photographs: N.S.W. Government Printer

Left: The arrival of the first train at Parramatta in 1855. The first railway line in N.S.W. was opened in 1855 between Sydney and Parramatta, a distance of 20 kilometres. The line included a viaduct over Long Cove Creek (centre left). Today there are nearly 10,000 kilometres of lines throughout N.S.W.

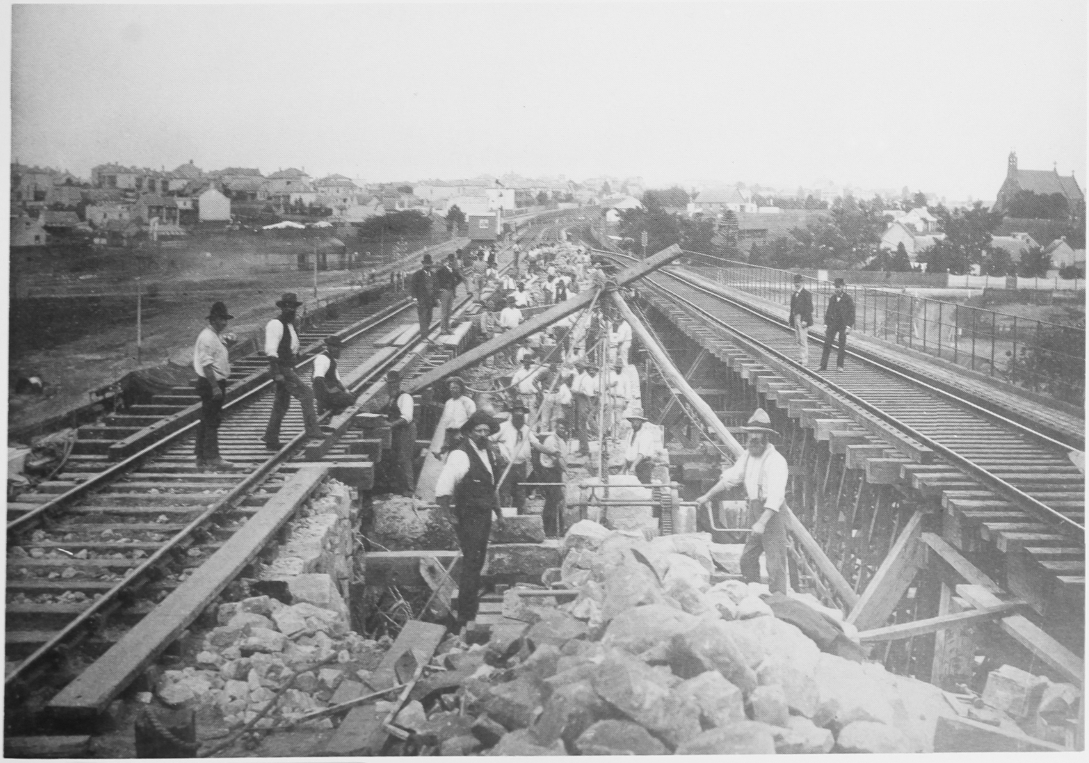
Below: Replacement of a stone viaduct with a steel bridge near Petersham in the 1880s.

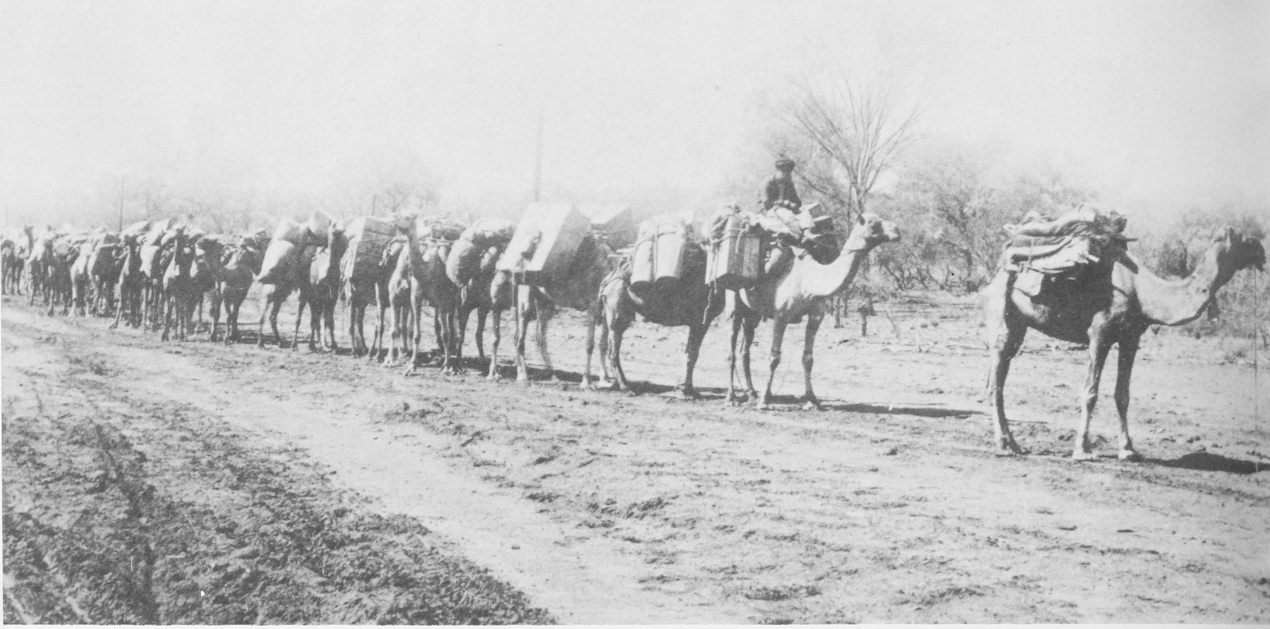


ARRIVAL OF THE FIRST RAILWAY TRAIN AT PARRAMATTA, FROM SYDNEY.



VIADUCT, AT LONG COVE, ON THE SYDNEY AND PARRAMATTA RAILWAY.



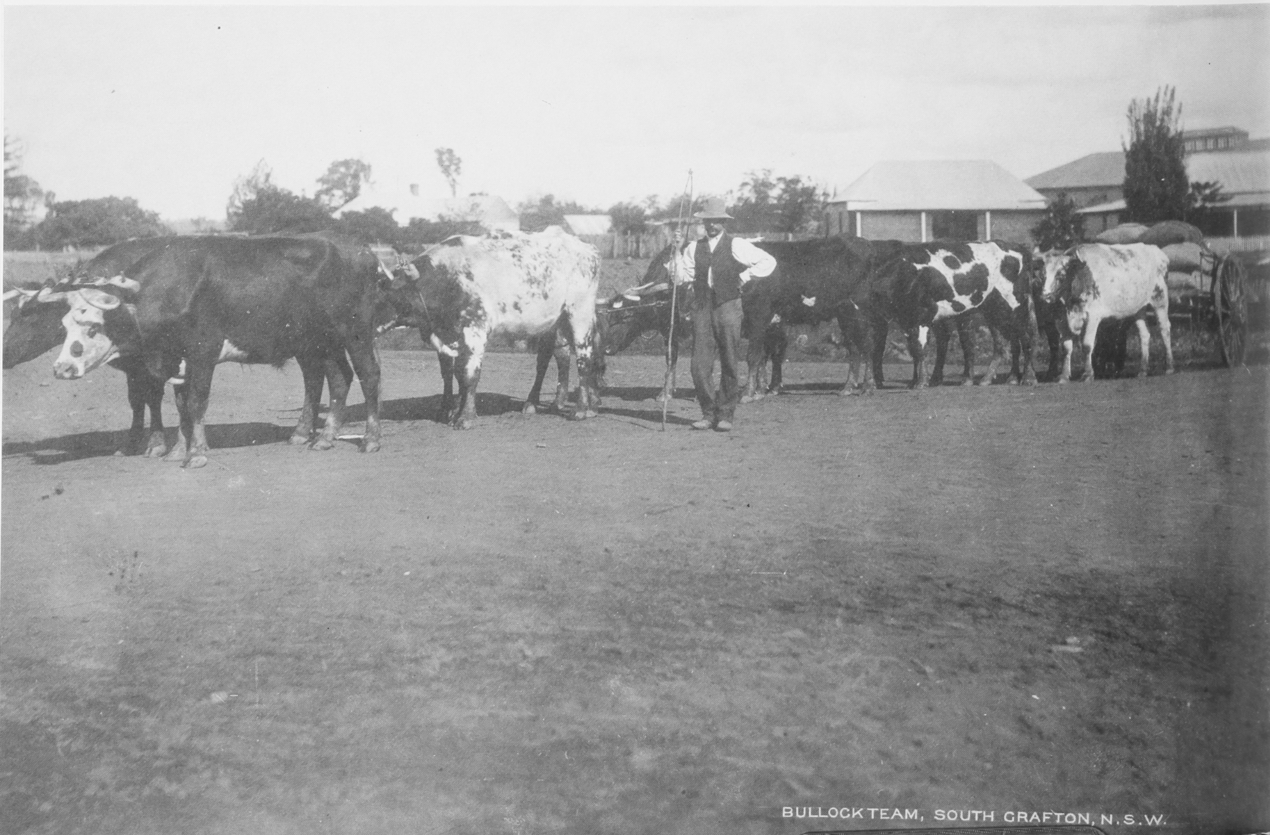


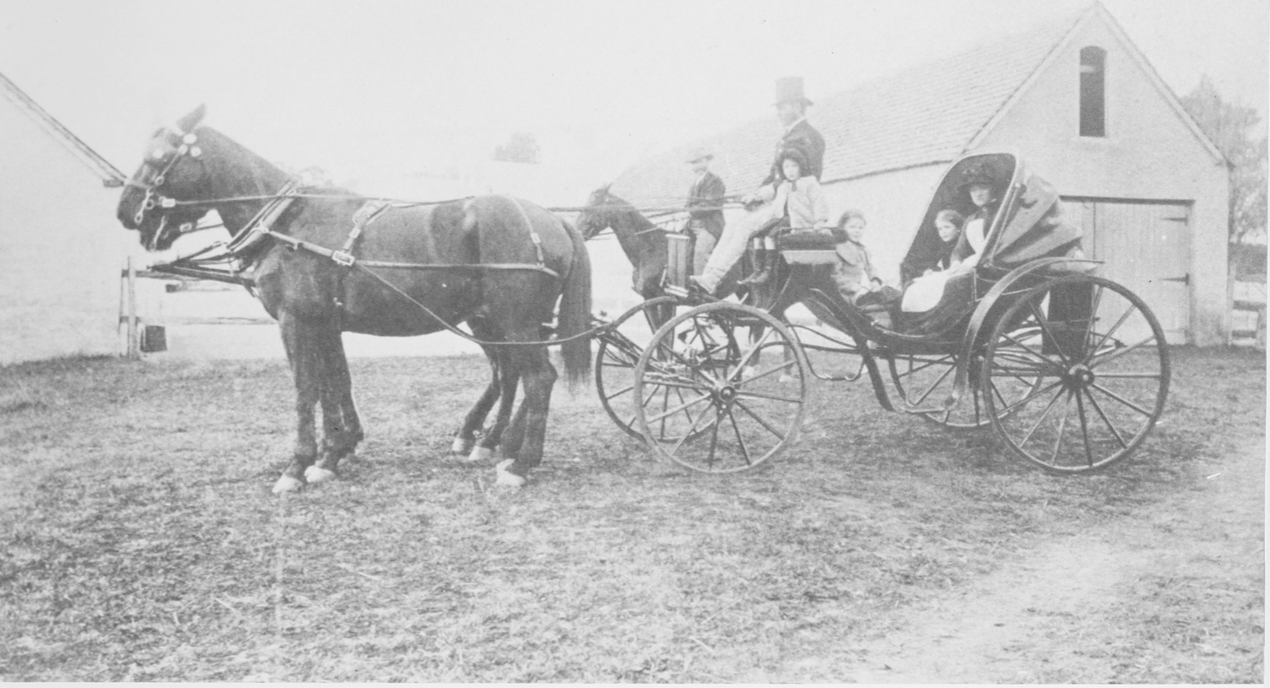
Mitchell Library, State Library of New South Wales

Camel trains, Warrego District. Camels were well adapted to the rugged outback terrain and were extensively used to carry supplies and wool. They were introduced in the second half of the nineteenth century and their number reached a peak in the early 1920s. During the late 1920s their use was progressively replaced by motor vehicles.

Bullock team, South Grafton. Introduced in the 1790s, bullock teams were first used around Sydney to haul building materials. Later, they were used more widely to transport supplies to outback stations and to return with wool, other agricultural produce, timber and minerals. Today many roads follow the original bullock routes.

N.S.W. Government Printer





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A family in a horse-drawn carriage. This photograph was taken in the later stages of the nineteenth century. The station buildings in the background are part of Lanyon, near Queanbeyan.

The first car in Sydney, a Genuine De Dione Voiturette, was imported by W.J.C. Elliott in 1900. It is shown (below) with a family on board in Central Avenue, Mosman. At three horsepower and water cooled it was capable of 25 miles per hour with three passengers. Speed could be regulated down to as low as one mile per hour.

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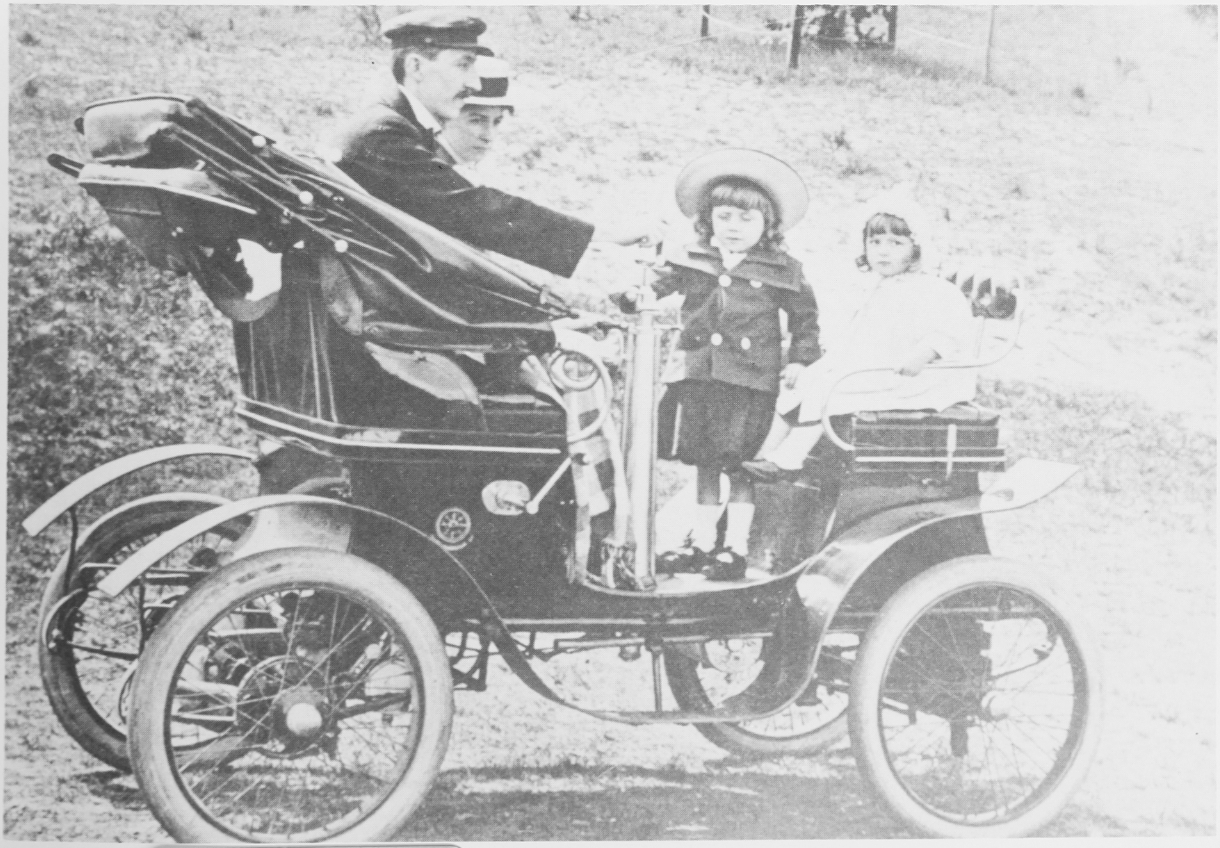
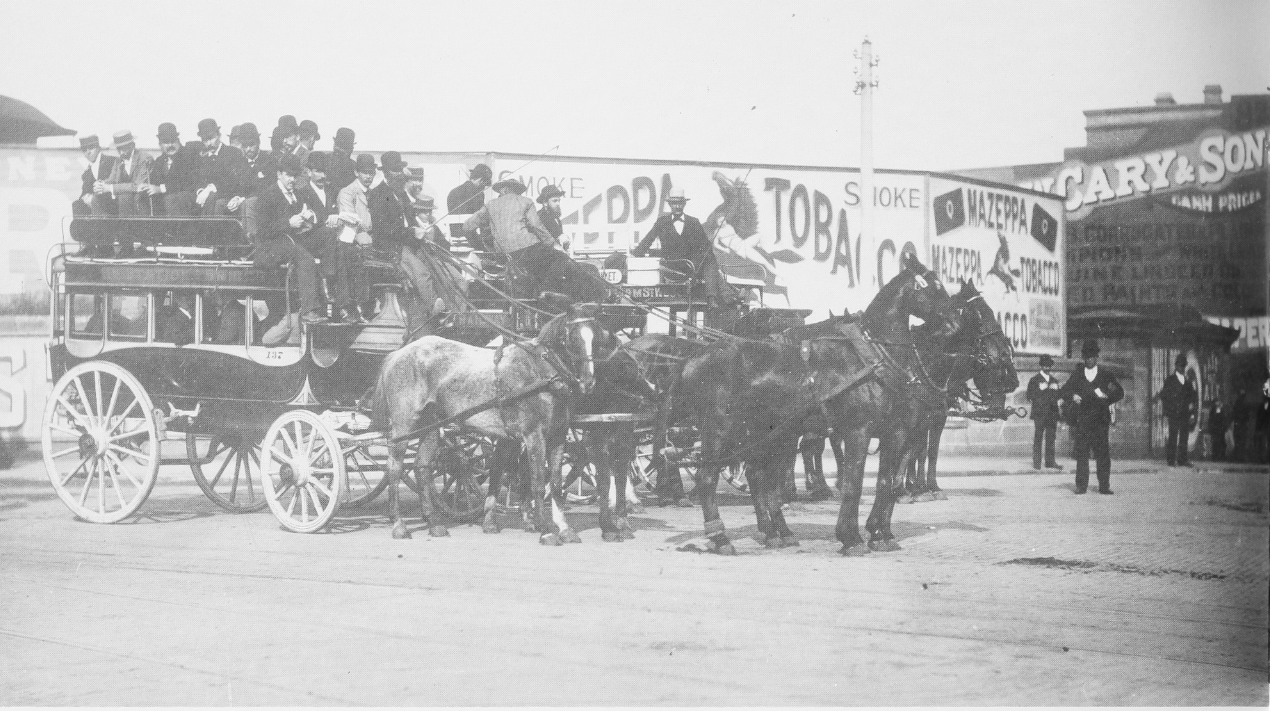


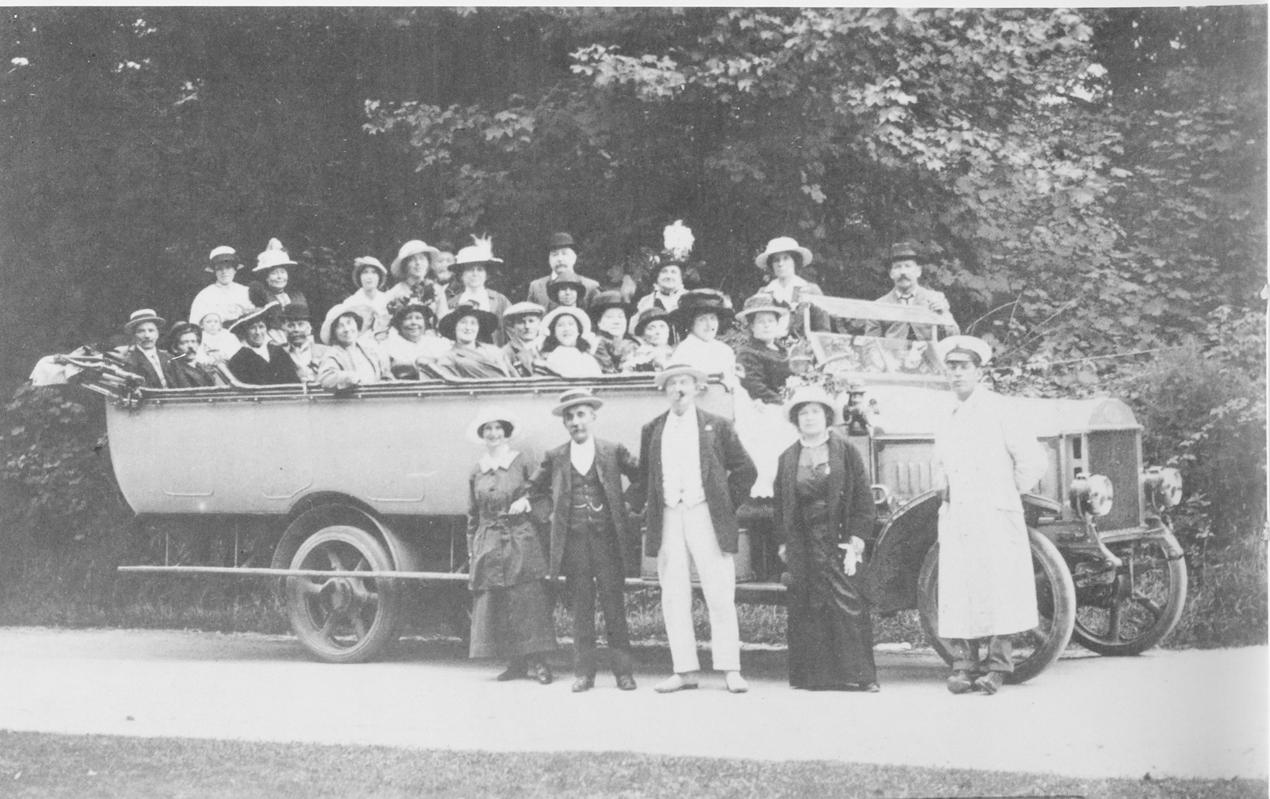

SMOKE
MAZEPPA
TOBACCO
SMOKE
MAZEPPA
MAZEPPA
TOBACCO
CARY & SONS

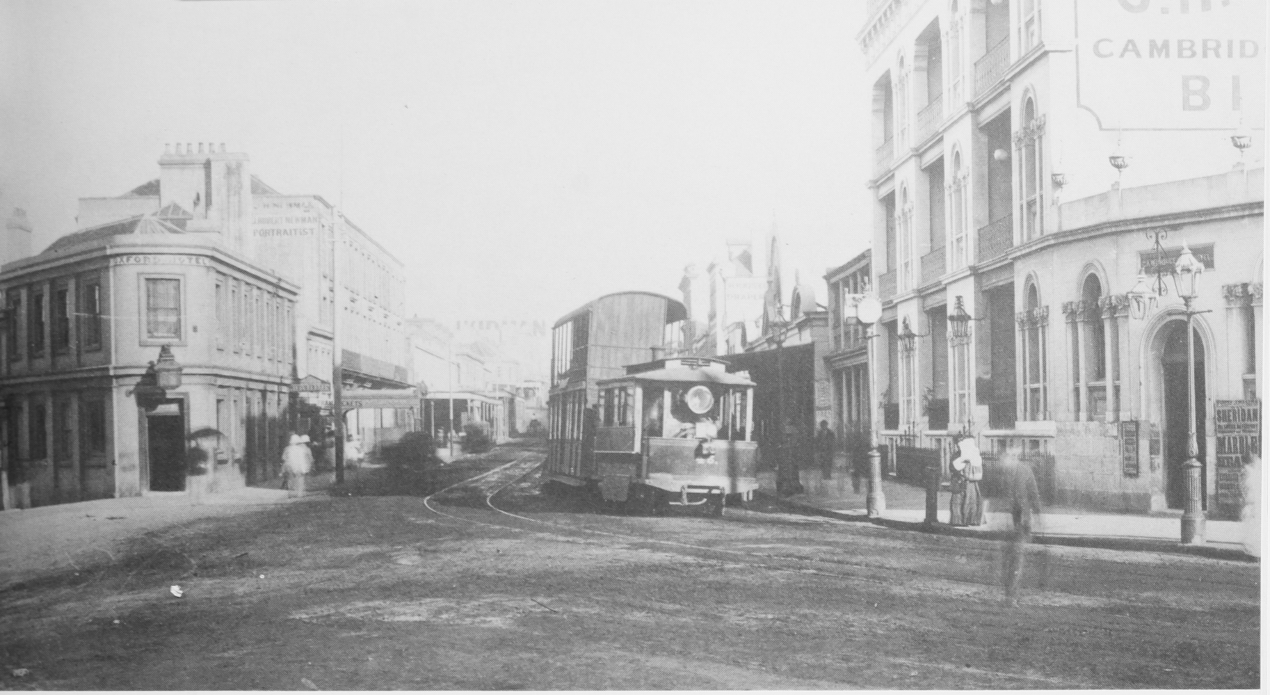
N.S.W. Government Printer

Four horse omnibuses competed with government trams for passengers between Sydney and the suburbs for a fare of threepence.

Charabancs replaced horse-drawn omnibuses in the early years of this century. They were large vehicles with seats set crosswise. Later models had a solid roof and blinds to protect passengers from inclement weather.

Mitchell Library, State Library of New South Wales



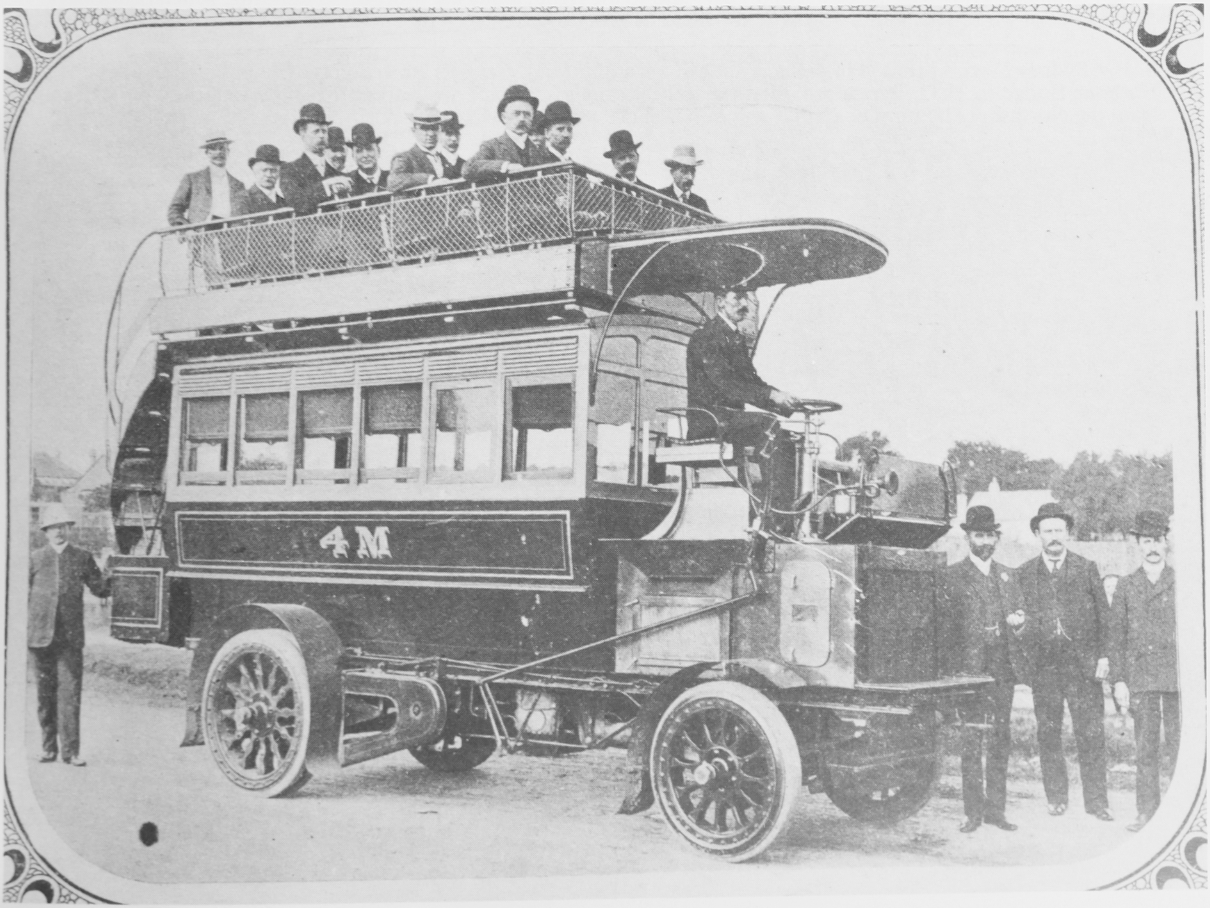


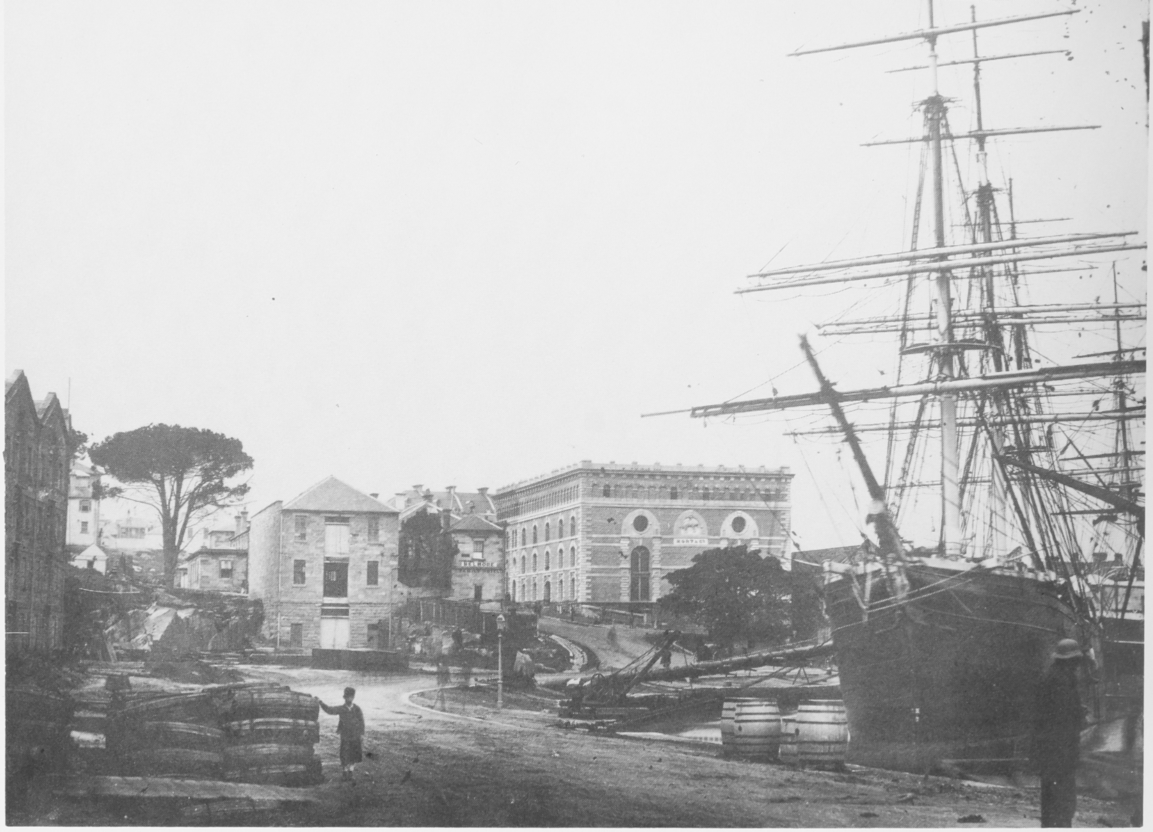
N.S.W. Government Printer

Above: Horse-drawn trams were introduced in Sydney during the 1860's but were discontinued because the rails proved too much of a nuisance as they had been laid above the surface of the streets. In 1879 a steam tramway was introduced to run between Redfern station and Hunter Street and during the 1890's electric trams replaced the steam trams. From 1930, bus services gradually substituted for electric tramways until 1961, when the trams were finally discontinued. The photograph shows a Rainfords tram in Oxford Street in 1884.

Below: Trial of a new early model double-decked bus at Enmore.

Mitchell Library, State Library of New South Wales



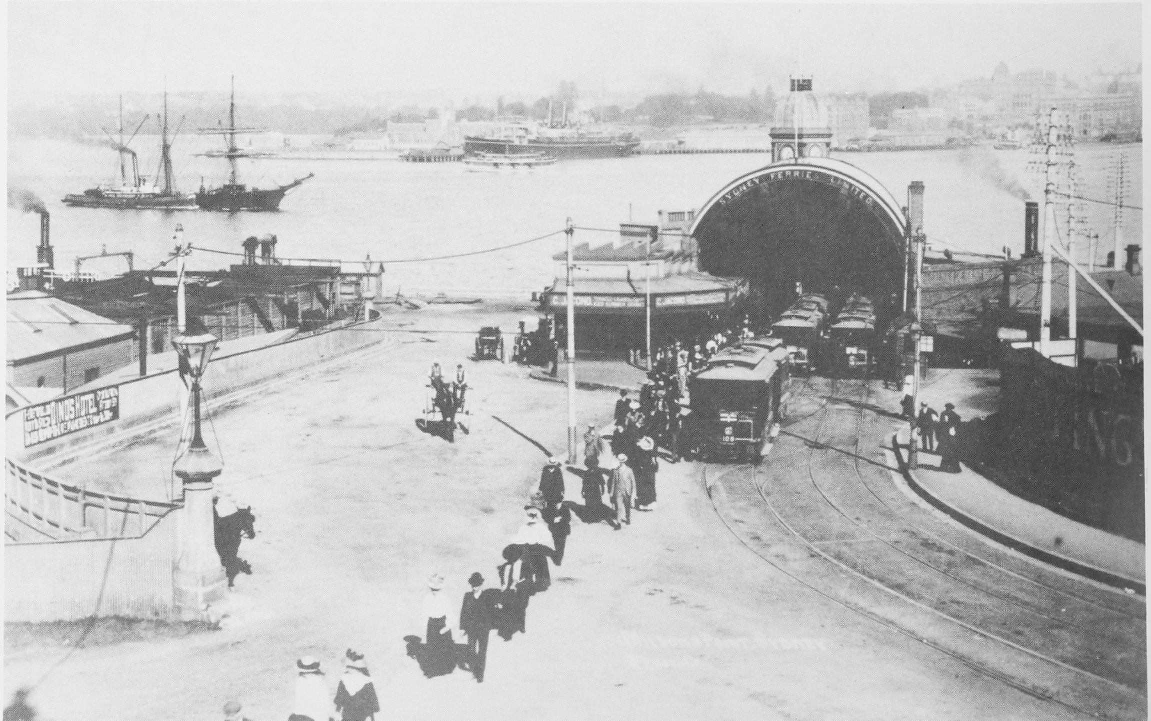


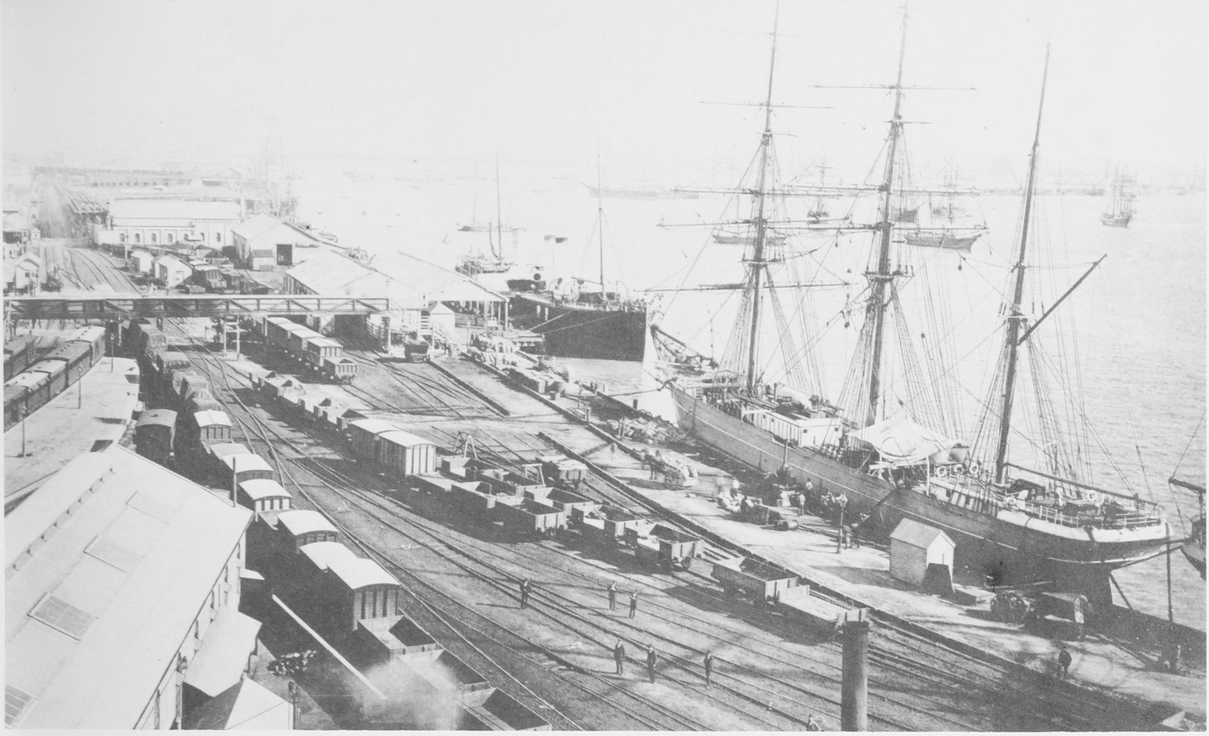
N.S.W. Government Printer

Above: Circular Quay, 1870, during the period of clipper ships. The barque Phoenician, the first clipper to come to Port Jackson from England, reduced the run from 140 days to 91 days. On the left of the picture is the Belmore Hotel, popularly known as the "First and Last" and to the right stands the Mort & Co building, which could store 5,000 bales of wool. This building was demolished in 1960 to be replaced by the first AMP tower.

Below: Sydney Ferries Limited interchange at Milson's Point in the early 1900s. Before the opening of the Sydney Harbour Bridge in 1932, ferries provided the only means of crossing the harbour. For passengers who arrived from the Northshore by tram or train it was only a short walk to the ferry.

Mitchell Library, State Library of New South Wales



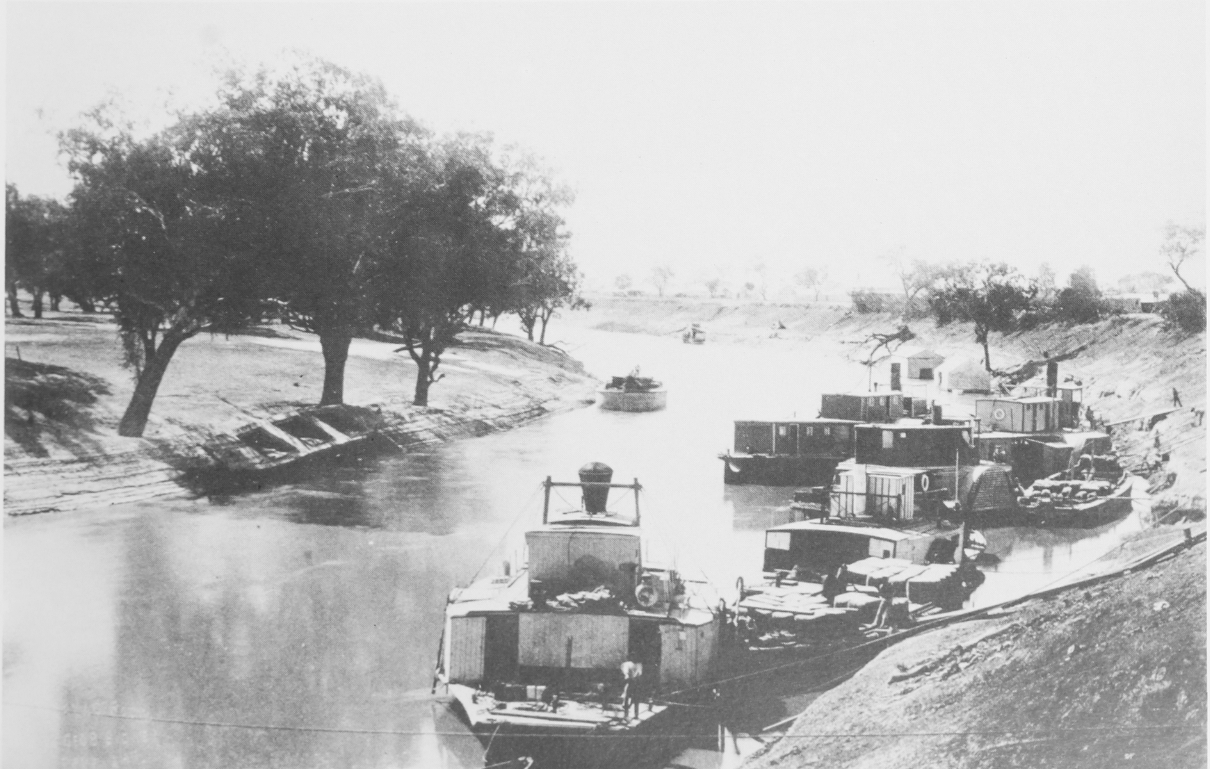


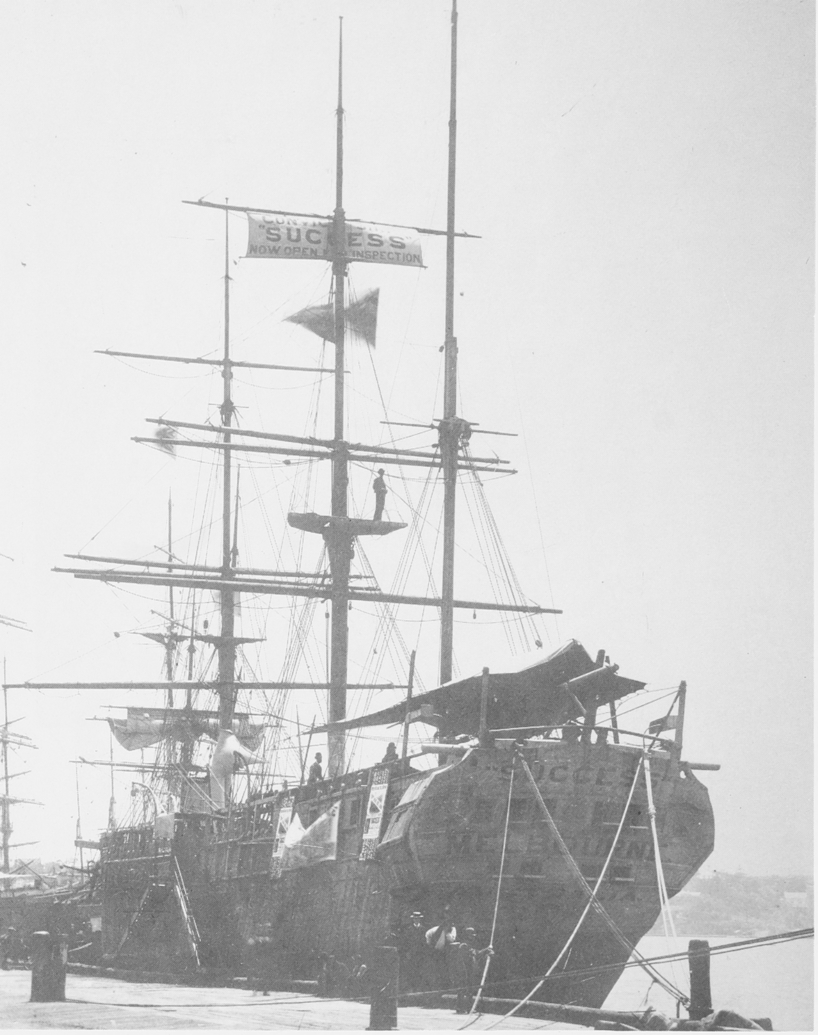
National Library of Australia

Queens Wharf, Newcastle Harbour, 1884. "Magnificent wharves line its shores, provided with hydraulic and steam cranes of the most modern type. The importance of Newcastle is mainly due to the existence of immense coal deposits in its neighbourhood, which supply not only all the Australian Colonies, but the China seas, South America, and the Pacific slopes of the United States". Wealth and Progress of New South Wales. 1887-88, T.A. Coghlan.

River steamers of shallow draught were used extensively to carry wool to markets and, on the return journey, household and farming supplies upstream to farms. They plied thousands of kilometres along the Darling, Lachlan, Murrumbidgee and Murray rivers. The photograph (below) shows the loading of wool at Bourke. This operation required skilled men to ensure the stability of the steamers (and the one or two barges they sometimes towed), by carefully stacking and lashing the bales.

Mitchell Library, State Library of New South Wales

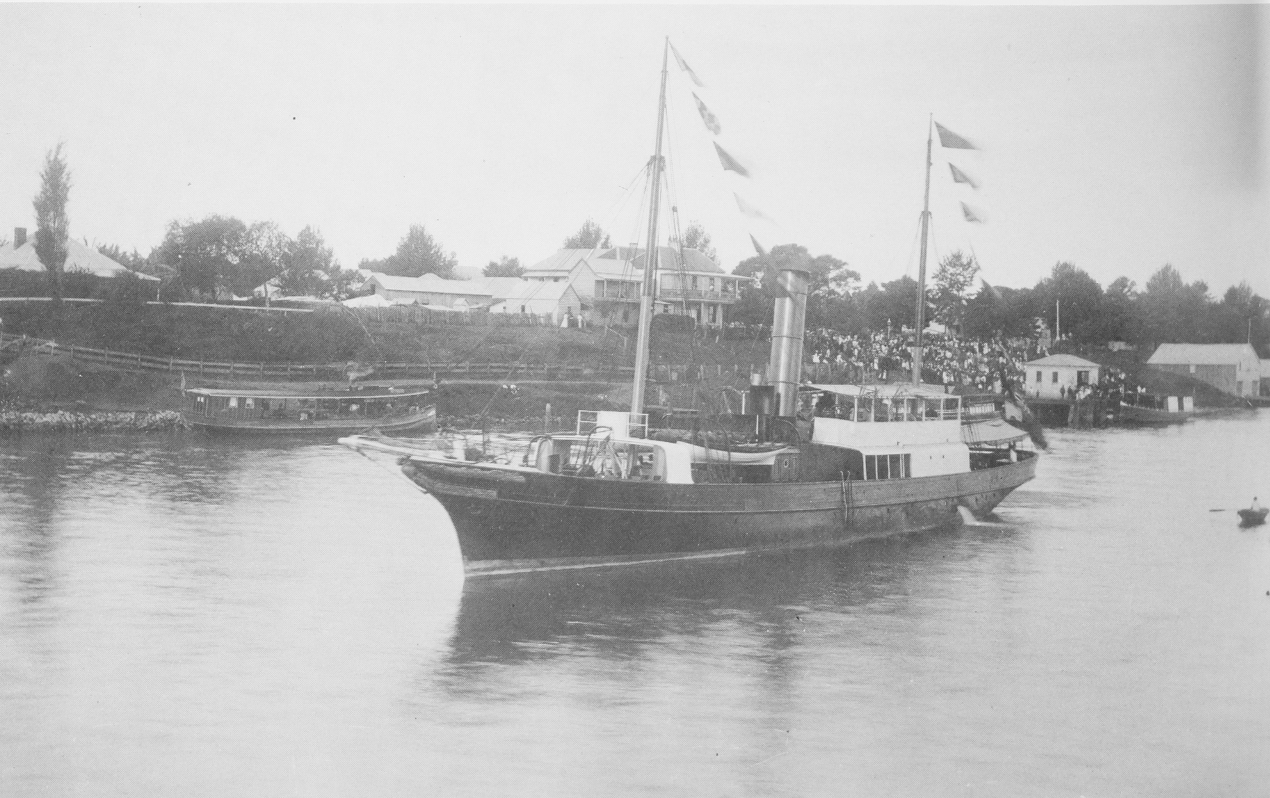




Left: The Success, which was claimed to be similar to the type of ships used to transport convicts to the Colony, was built in and exhibited throughout Australia in the 1890s. Although conditions on board convict ships were often quite poor in the early years, they later improved with the supply of suitable food and clothing and the inclusion of a surgeon among the crews. The surgeon and master of convict ships were also offered financial incentives to maintain the health and safety of the convicts.

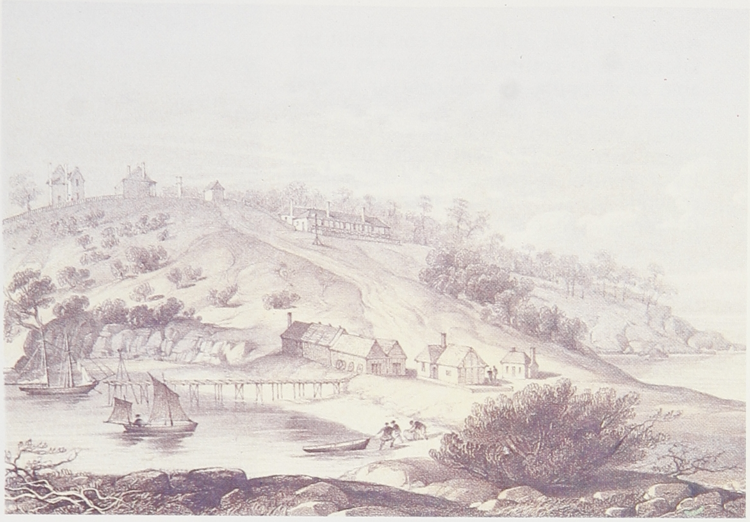
Below: The State Governor's steam launch at Grafton in 1894.

Photographs: N.S.W. Government Printer



Eden, Twofold Bay, Elizabeth Hudspeth. Twofold Bay on the southern coast of N.S.W. was first settled in the 1830's at Eden and Boyd Town. In the nineteenth century whaling fleets called at the Bay for supplies and repairs. In Boyd Town, which had been established as a fully equipped private settlement, these services could be exchanged for oil or bone. Vessels trading between Sydney, Melbourne and Hobart also visited the port. Although the area inland from the Bay includes the rich agricultural Monaro region, the port has not been expanded and the customs house, built in 1849 at Eden has never been used. In the 1980's, the port's principal trade is woodchip exports as well as servicing the local fishing fleet.

National Library of Australia, Rex Nan Kivell Collection



FRESHWATER

The Urban Transit Authority currently operates a fleet of 19 ferries and 4 hydrofoils on Sydney Harbour. The Manly ferry "Freshwater" and its sister ferries are the largest currently in operation. Built by the State Dockyard at Newcastle and commissioned in 1982 the "Freshwater" is capable of carrying 1,100 passengers and has a maximum speed of 18 knots. Swells from the Tasman Sea sometimes make the crossing of the Heads extremely rough and occasionally it is necessary to suspend services.

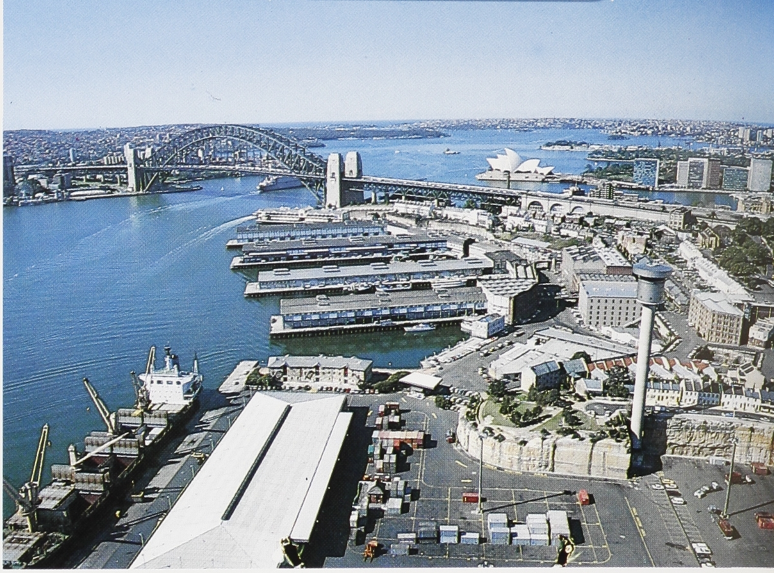
Urban Transit Authority of New South Wales

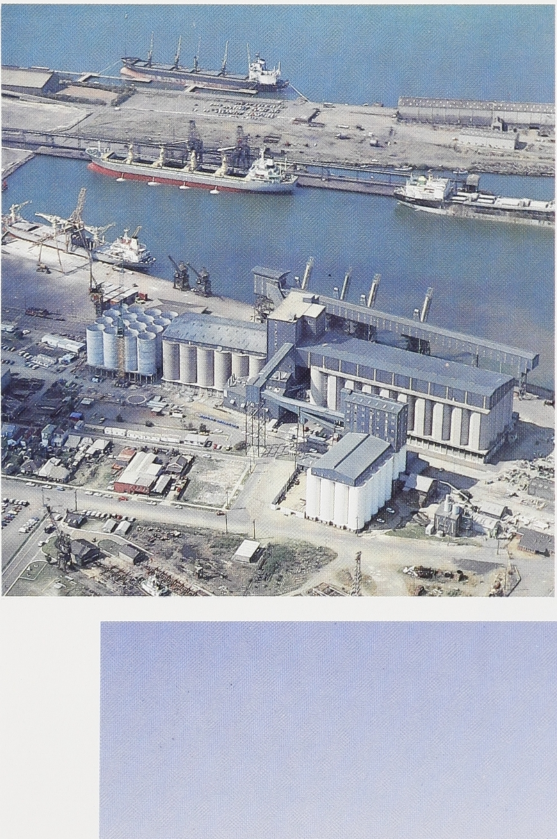
Hydrofoils were introduced to Sydney Harbour in 1965. These high speed vessels operate on the Circular Quay — Manly run and cover the distance in approximately half the time taken by a Manly ferry.

Urban Transit Authority of New South Wales

Right: The Port of Sydney has about ten kilometres of commercial wharves available to shipping. In addition to general cargo, there are special berths for containers, roll-on roll-off ships, and coal and wheat carriers. The port traffic management control is housed in a reinforced concrete tower 87 metres high, shown in the foreground to the right.

Department of Water Resources





Left: Newcastle Harbour is the major port servicing the Hunter Valley and Northern N.S.W. The grain terminal, operated by the Grain Handling Authority of N.S.W., handles nearly half the State's wheat exports. The three coal loaders, Kooragang Island, Steelworks Channel Loader and Carrington Basin contain approximately two-thirds of the State's coal loading capacity.

Grain Handling Authority of N.S.W.

Below: The Container terminal at Botany Bay is Australia's largest and most sophisticated. The Port of Botany Bay contains the biggest crude oil importing facility in N.S.W.

Maritime Services Board of N.S.W.

**Length of Roads in N.S.W. Under the Control of the Department of Main Roads, 30 June 1986 *(a)* (*Source*: Department of Main Roads)
(kilometres)**

Class of Road	*Sydney Statistical Division*	*Rest of N.S.W.*	*Total N.S.W.*
State Highways	425	9,840	10,265
Main Roads	1,583	16,906	18,489
Trunk Roads	16	7,069	7,085
Secondary Roads	298	—	298
Tourist Roads	93	337	430
Developmental Roads	30	3,226	3,256
Unclassified Roads	26	2,490	2,516
Total	**2,471**	**39,868**	**42,339**

(a) Includes 213 kilometres of roads with freeway conditions.

Main Roads Finances

The income of the Department of Main Roads is derived chiefly from motor vehicle registration taxes, appropriations from Consolidated Fund of receipts from diesel fuel levy, Commonwealth Government road grants, contributions by government authorities and other organisations for specific works, contributions by local government authorities for works carried out in conjunction with works on main roads, tolls imposed on vehicles using toll works, and grants by the State Government. The Commissioner for Main Roads is also empowered under the Public Authorities (Financial Accommodation) Act 1981 to raise funds provided in the State's Semi-government loan program.

In terms of the State Roads Act 1986 the transactions of the Department are conducted through three separate funds — the *Metropolitan Roads Fund*, for main, secondary, and tourist roads and toll works in the Metropolitan area (which is deemed, for the purposes of the Act, to include the County of Cumberland, the City of Blue Mountains and parts of the City of Wollongong and Shire of Hawkesbury); the *Country Roads Fund*, for main and tourist roads and toll works outside the Metropolitan area; and the *Commonwealth Aid for Roads Fund* for transactions involving Commonwealth grants for roads.

A motor vehicle *weight tax* which is described in the division "Motor Transport and Road Traffic" of this chapter, is imposed in New South Wales and collected by the Department of Motor Transport when vehicles are registered.

Effective from 1 September 1982 the Business Franchise Licences (Petroleum Products) Act 1982 introduced licence fees for the sale of motor spirit and diesel fuel in New South Wales.

In 1985-86 $7.4m was provided from the Road Transport and Traffic Fund for traffic facility works carried out by the Department of Main Roads. The Fund is administered by the Department of Motor Transport and the revenue of the Fund consists mainly of drivers' licence fees and vehicle registration fees. These fees are described in the division "Motor Transport and Road Traffic" of this chapter.

COMMONWEALTH GRANTS FOR ROAD CONSTRUCTION AND MAINTENANCE

Commonwealth assistance for roads for the period 1982-83 to 1984-85 was provided under the *Roads Grants Amendment Act 1982*. For the five year period, 1985-86 to 1989-90, assistance is being provided under the Australian Land Transport (Financial Assistance) Act 1985. Under this Act, grants are provided from a predetermined share of Commonwealth excise on motor spirit and diesel fuel and this share is indexed to the Consumer Price Index in accordance with existing arrangements for indexation of general excise rates. The funds raised from the excise are deposited in a special Trust Fund administered by the Commonwealth Department of Transport.

An amount of $255m was allocated as grants to New South Wales for 1986-87 for roads under the new legislation. This represents 31.7 per cent of the total Commonwealth grants for roads to the States and Northern Territory in 1986-87.

The grants made to New South Wales under the legislation over the four year period, 1983-84 to 1986-87, are shown in the following table.

Commonwealth Grants to N.S.W.
$m

Road category	*1983-84*	*1984-85*	*1985-86*	*1986-87*
National and developmental roads *(a)*	117.6	124.8	131.0	134.8
Urban arterial roads	*(b)*73.3	*(b)*77.7	*(a)*39.2	*(a)*38.5
Rural arterial roads			*(a)*24.5	*(a)*24.1
Local roads *(a)*	52.5	55.7	58.6	57.6
Total Commonwealth grants to N.S.W.	**243.4**	**258.2**	**253.3**	**255.0**

(a) For construction and maintenance. *(b)* For construction only in respect of both Urban and Rural arterial roads.

Under the *Australian Bicentennial Road Development (ABRD) Trust Fund Act 1982*, the Commonwealth Government is providing the States with additional funds to upgrade roads for Australia's bicentennial year in 1988. The funds are being raised from a surcharge on motor spirit and diesel fuel excise, and deposited in a special Trust Fund, administered by the Commonwealth Department of Transport. A charge of 1c. a litre was applied from 17 August 1982, and raised to 2c. a litre on 1 July 1983.

Under this program, an estimated $2.5 billion is being provided to the States between 1982 and 1988. For 1986-87, New South Wales is expected to receive $140m from the Trust Fund, of which $9.7m will be allocated to Urban Public Transport projects. The balance of $130.3m will be allocated to expenditure on national, arterial and local roads in accordance with the provisions of the legislation.

The next table shows the manner in which the grants to New South Wales were distributed during the last six years for the various Roads Grants Acts and the *Australian Bicentennial Road Development Trust Fund Act 1982*. (Grants relating to the ABRD Trust Fund Act commenced in 1982-83).

Distribution of Commonwealth Grants to N.S.W. for Roads
(*Source*: Department of Main Roads)
($'000)

Year ended 30 June	*Department of Main Roads*	*Traffic Authority of N.S.W.*	*Forestry Commission*	*Soil Conservation Service*	*National Parks and Wildlife Service*	*Total grant*
1981 *(a)*	193,732	2,439	280	50	—	196,501
1982 *(b)*	212,027	1,949	300	60	—	214,336
1983 *(b)*	260,867	2,148	300	60	—	263,375
1984 *(b)*	386,138	2,745	300	60	98	389,341
1985 *(b)*	379,786	3,263	300	64	—	383,413
1986 *(b)*	381,451	2,960	300	58	—	384,769

(a) Excludes funds provided under the Transport (Planning and Research) Act. *(b)* Excludes funds provided under ABRD legislation for Urban Public Transport projects.

BRIDGES

At 30 June 1986 there were 6,290 bridges of all types with a total length of 229,034 metres in New South Wales. Municipal and shire councils are empowered to control road bridges which are not under the control of the Department of Main Roads.

Sydney Harbour Bridge

The Sydney Harbour Bridge is administered by the Department of Main Roads. Tolls are charged for vehicular traffic using the Bridge. Net tolls in 1985-86 totalled $4m. In addition a contribution of $712,050 was received from the State Rail Authority and the Urban Transit Authority for railway and bus passengers. During 1985 an estimated 65 million road vehicle crossings were made over the Bridge. From 31 May 1987, the toll charge was increased to $1 for all vehicles. The revenue from the toll will contribute substantially to the cost of a proposed road tunnel across the harbour floor from Kirribilli on the northern side to the Eastern Distributor at Macquarie Street on the southern side.

MOTOR TRANSPORT AND ROAD TRAFFIC

Special laws govern the use of motor and other road vehicles. They have been framed with a view to minimising the risk of accident and facilitating the flow of traffic, to promote economy in the organisation of State-owned and commercial transport services, and to procure funds for administration and for the construction and repair of roads.

The police enforce traffic laws, and have authority to take action against dangerous and disorderly traffic, to serve notice of traffic offences, to regulate the flow of traffic, and to enforce traffic parking regulations.

The Motor Traffic Act 1909, provides that the speed limit on a length of road is as indicated by signs. Where there are no signs the general limits fixed by the law apply. There is a limit of 60 kilometres per hour on roads with street lights and in other areas where a 60 kilometres per hour sign is displayed. On roads without street lights the general limit is 100 kilometres per hour except where a different speed limit is indicated by signs. Provisional licences issued to new drivers and riders limit holders to a maximum speed of 80 kilometres per hour. The holder of a learner's permit to drive or ride is restricted to a maximum speed of 70 kilometres per hour.

Motor vehicles must be registered, be in a roadworthy condition and comply with required vehicle safety standards if driven upon public streets. Owners of motor vehicles are required to insure their vehicles against liability in respect of injury to other persons arising out of the use of the vehicles. Drivers of motor vehicles and riders of motor cycles are required to be licensed, and must pass an eyesight test, a practical driving test, and a written test in knowledge of the traffic regulations.

ADMINISTRATION AND CONTROL OF MOTOR TRANSPORT

Department of Motor Transport

The Commissioner for Motor Transport is the driver licensing and motor vehicle registration authority in New South Wales and the Department's functions extend over a wide variety of matters.

The Department is responsible for collecting taxes for road works paid in conjunction with vehicle registrations, stamp duty on new and transferred registrations, and contributions for the transport accident compensation scheme effected with the Government Insurance Office. It also licenses and regulates the operations of commercial passenger carrying services such as taxicabs, hire cars and privately-owned bus services; and licenses paid motor vehicle driving instructors, and operators and drivers engaged in the tow-truck industry.

Traffic Authority of New South Wales

The Traffic Authority of New South Wales is constituted under the Traffic Authority Act 1976. The principal functions of the Authority are to: *(a)* improve traffic arrangements throughout the State, including arrangements relating to regulation and control of vehicles; *(b)* establish general standards and principles in the design, construction, and erection of traffic control facilities (including intersections and approaches to railway crossings); *(c)* establish priorities and co-ordinate the activities of public authorities in providing traffic control lights, signs, and other traffic facilities; *(d)* promote traffic safety measures for the safety of pedestrians and drivers and to reduce accidents occurring on public streets; and *(e)* disseminate road safety educational material to the general public and persons engaged in the motor vehicle industry.

The structure and membership of the Authority are outlined in New South Wales Year Book No.70.

The Traffic Authority is assisted in technical and administrative matters by a Secretariat comprising two branches. One of these branches conducts research into road traffic accidents, and is discussed later in the subdivision "Road Accidents and Road Safety".

The Authority is funded from a variety of sources, principally from the Road Transport and Traffic Fund and the Metropolitan Roads Fund.

MOTOR VEHICLE REGISTRATIONS

Motor vehicles must be registered if driven upon public streets, and must display their registration label and number plates. Before registration, or renewal of registration, motor vehicles must be inspected to ensure that they comply with the prescribed standard of roadworthiness. Suitable service stations and similar establishments throughout the State are licensed as inspection stations, and a number of mechanics employed at these stations are licensed as examiners.

Separate arrangements for the regular inspection of heavy motor vehicles by Department of Motor Transport inspectors have been introduced and additional random checks of these vehicles are carried out by mobile inspection teams.

The Department has also assumed responsibility for the registration of recreation vehicles which are not registered for use on public roads.

The following table shows the number of motor vehicles on the register in New South Wales from June 1984. Figures are derived from the records of State and Commonwealth authorities and are estimates only.

Motor Vehicles *(a)* on the Register *(b)*, N.S.W.
('000)

Date	*Cars*	*Station wagons*	*Utilities*	*Panel vans*	*Trucks (c)*	*Buses*	*Motor cycles*	*Total vehicles*
1984: 30 June	1,806.7	356.4	166.3	193.4	192.1	25.6	132.7	2,873.2
31 Dec.	1,830.2	361.8	170.2	197.8	197.6	34.7	132.6	2,924.9
1985: 30 June	1,852.5	365.4	174.3	204.4	199.2	40.5	130.9	2,967.2
31 Dec.	1,880.1	368.4	178.0	209.3	203.5	45.1	128.5	3,013.0
1986: 30 June	1,889.5	368.1	179.6	211.7	202.2	48.1	124.3	3,023.6
31 Dec.	1,896.6	368.6	180.5	212.7	203.7	50.3	118.2	3,030.6

(a) Excludes tractors, trailers, non-motorised caravans, mobile plant and equipment and defence force vehicles and vehicles owned by Australian government departments and authorities. *(b)* See text preceding table. *(c)* Includes truck-type vehicles (e.g. street flushers).

Public Motor Vehicles

The licensing of public motor vehicles (that is, those engaged in non-Government public transport services) throughout New South Wales is subject to the provisions of the State Transport (Co-ordination) Act 1931. Those in the Metropolitan, Newcastle and District, and Wollongong Transport Districts are also controlled in terms of the Transport Act 1930, under which the Commissioner for Motor Transport licenses services and vehicles, fixes fares, determines conditions and standards of service, and imposes charges and fees for those areas. Under the State Transport (Co-ordination) Amendment Act 1980 and the Local Government (Public Vehicles) Amendment Act 1980, sole control of public motor vehicles in country areas is also vested in the Commissioner for Motor Transport.

Public motor vehicles subject to control include: *buses* which operate on fixed routes and charge a fixed fare per passenger per section; *taxicabs* for public hire, the fare being recorded by a taximeter attached to the vehicle; *hire cars*, which are subject to private hire (vehicle and driver) at contract rates of fare, and may not use taximeters or operate from public stands; *tourist vehicles*, which are specially licensed for tourist traffic and, in general, may not pick up or set down passengers en route; and *motor cars and lorries* licensed to operate in services (outside the Metropolitan, Newcastle and District, and Wollongong Transport Districts) for the carriage of goods and limited numbers of passengers.

A service licence must be obtained for each privately-owned bus service within the State. The registration of the vehicle is conditional on compliance with regulations as to design, construction, and provision for the safety and comfort of passengers.

Amendments to the State Transport (Co-ordination) Act allow the Commissioner to dispose of licences to operate taxi-cabs and all other public motor vehicles, except motor omnibuses, for a fee equivalent to the current market value of the licence concerned.

A Taxi Transport Subsidy Scheme commenced in 1981. A number of vehicles specially modified for the carriage of disabled persons are used as taxicabs. Registered users of the service pay half of the required fare and the Urban Transit Authority pays half.

Hire car licences are issued to approved applicants.

Public Passenger Vehicles on Register, N.S.W. (*Source*: Department of Motor Transport)

At 30 June	*Metropolitan, Newcastle and Wollongong Transport Districts*			*Other districts*			*Tourist vehicles (all districts)*
	Buses	*Taxi-cabs*	*Hire cars*	*Buses*	*Taxi-cabs*	*Hire cars (a)*	
1981	3,693	3,801	250	3,501	909	85	127
1982	3,618	3,827	253	3,205	912	94	129
1983	3,560	3,882	250	3,098	907	84	124
1984	3,543	3,888	245	3,190	902	76	153
1985	3,602	4,029	245	3,409	897	78	180
1986	3,490	4,103	243	3,458	893	67	217

(a) Includes a number operating in regular services.

Censuses of Motor Vehicles

Particulars of the type, make, year of manufacture, tare weight, and location of the motor vehicles in Australia are available from periodic censuses of motor vehicles conducted by the Australian Statistician. The last two censuses covered the vehicles on the register at 30 September 1982 and at 30 September 1985.

The number of cars and station wagons registered in New South Wales per 1,000 of population was 389 in September 1982 and 395 in September 1985.

The age distribution for the main types of registered motor vehicles in New South Wales from the 1985 Census is given in the next table.

Registered Motor Vehicles in N.S.W.: Year of Manufacture

Type of vehicle	*At 30 September 1982 (b)*	*At 30 September 1982 (a)*					
		Year of manufacture					
		Before 1977 (c)	*1977 to 1980*	*1981 to 1983*	*1984*	*1985*	*Total*
Cars and station wagons	r2,070,380	868,550	576,882	453,211	164,359	106,706	2,169,708
Utilities	158,448	69,058	41,754	33,881	15,480	10,648	170,821
Panel vans	r161,734	51,115	47,715	*(a)*66,561	25,158	14,298	*(a)*204,847
Trucks—							
Rigid	155,171	71,404	44,162	30,159	11,798	7,953	165,476
Articulated	16,078	6,963	5,063	2,593	1,130	978	16,727
Other Truck-type *(d)*	11,920	7,318	3,237	2,161	739	459	13,914
Buses	15,918	7,260	4,376	*(a)*14,719	10,998	5,818	*(a)*43,171
Motor cycles	118,496	20,908	30,113	47,703	12,984	4,111	115,819
Total vehicles	2,708,145	1,102,576	753,302	650,988	242,646	150,971	2,900,483
Plant and equipment *(e)*	22,948	n.a.	n.a.	n.a.	n.a.	n.a.	23,681
Caravans	68,158	n.a.	n.a.	n.a.	n.a.	n.a.	63,003
Trailers	415,123	n.a.	n.a.	n.a.	n.a.	n.a.	456,531

(a) Includes State and Commonwealth Government owned vehicles other than those of the defence forces. *(b)* Excludes all Commonwealth Government owned vehicles. *(c)* Includes vehicles with year of manufacture unknown. *(d)* Comprises those truck-type vehicles which are designed for purposes other than freight carrying, e.g. street flushers. *(e)* Includes tractors registered.

New Motor Vehicles Registered

The number of new motor vehicles registered in New South Wales in each of the last six years is shown in the next table.

New Motor Vehicles Registered *(a)* in N.S.W.

Year ended 30 June	*Cars*	*Station Wagons*	*Utilities*	*Panel vans (b)*	*Trucks and truck-type vehicles*	*Buses (b)*	*Motor cycles*	*Total vehicles*
1981	131,197	35,536	12,134	17,118	15,488	1,598	26,664	239,735
1982	132,090	33,448	14,019	25,013	15,723	1,945	24,705	246,943
1983	123,267	25,754	10,433	28,016	9,658	1,527	21,829	220,484
1984	122,774	28,193	11,987	24,554	10,424	9,023	16,971	223,926
1985	138,646	27,568	16,418	24,765	14,813	10,773	15,503	248,486
1986	139,049	22,518	14,285	18,964	13,137	7,833	11,689	227,475

(a) Includes State and Commonwealth Government owned vehicles other than those of the defence forces. Excludes tractors, trailers, non-motorised caravans, and mobile plant and equipment. *(b)* From August 1983, small bus-type vehicles previously included in "panel vans" have been included in "buses".

The majority of vehicles entering the Australian market are almost completely manufactured in Australia or are assembled in Australia from local and imported components. Of the 476,488 new cars and station wagons registered in Australia in 1985-86, approximately 20 per cent were imported fully assembled.

The principal makes of new cars and station wagons registered in New South Wales in 1985-86 were Ford (29.4 per cent of total number registered), Holden (21.5 per cent), Toyota (15.0 per cent), Mitsubishi (13.4 per cent), Nissan (6.1 per cent), and Mazda (4.2 per cent). The principal makes of utilities, panel vans, buses and trucks were Toyota (34.6 per cent), Ford (15.3 per cent), Mitsubishi (11.1 per cent), Nissan (9.2 per cent), Holden (5.4 per cent) and Suzuki (5.1 per cent). The principal makes of motor cycles were Honda (34.6 per cent), Yamaha (20.5 per cent), Suzuki (20.0 per cent), Kawasaki (12.5 per cent), B.M.W. (6.0 per cent) and Harley-Davidson (3.1 per cent).

SURVEY OF MOTOR VEHICLE USAGE

Sample surveys to provide data on motor vehicle usage were conducted by the Australian Statistician for the years ended December 1963 and September 1971, 1976, 1979, 1982 and 1985. The sample for the 1985 survey comprised approximately 60,000 vehicles throughout Australia, scientifically selected from all vehicles which were on register at 30 September 1985, except buses for commercial usage, caravans, trailers, tractors, plant and equipment, defence services vehicles, and vehicles with diplomatic or consular registration. The estimates derived from the sample may differ from the figures which would have been obtained from a complete census using the same questionnaire and procedures. One measure of the likely difference is given by the standard error, which provides a measure of the extent to which an estimate might have varied by chance because only a sample of vehicles and not the whole population was surveyed. In the following statistics, the standard error for each estimate is shown as a percentage of the associated estimate.

The following table shows the total and average annual kilometres travelled by vehicles registered in New South Wales and Australia, classified by area of operation.

Total and Average Annual Kilometres *(a)* Travelled by Vehicles Registered in New South Wales and Australia: Area of Operation, Year ended 30 September 1985

Particulars	*Capital city urban*	*Provincial urban*	*Other areas of State or Territory*	*Total within State or Territory*	*Other States or Territories*	*Total*
			Registered in New South Wales			
Total annual kilometres —						
Million kilometres	*(b)*23,205.3	*(c)*4,996.0	15,658.5	43,859.8	1,960.4	45,820.1
Standard error (per cent)	*(b)*2.2	*(c)*5.0	2.8	1.3	6.7	1.3
Average annual kilometres —						
'000 kilometres	*(b)*11.5	*(c)*5.4	8.2	15.3	3.8	15.9
Standard error (per cent)	*(b)*2.0	*(c)*4.4	2.6	1.3	6.0	1.3
			Registered in any State or Territory			
Total annual kilometres —						
Million kilometres	74,186.5	17,047.0	42,421.3	133,654.8	6,772.6	140,427.4
Standard error (per cent)	1.1	2.3	1.5	0.7	3.4	0.7
Average annual kilometres —						
'000 kilometres	11.4	6.2	8.1	15.1	4.7	15.8
Standard error (per cent)	1.0	2.1	1.4	0.7	3.1	0.7

(a) See text preceding table for types of vehicles included. *(b)* Comprises the Sydney Statistical Division. *(c)* Comprises Newcastle, Wollongong and Port Kembla.

The total annual kilometres travelled by the 2,900,483 vehicles (excluding those with zero usage and buses used commercially) registered in New South Wales at 30 September 1985 was estimated as 45,820 million kilometres. Fifty one per cent of this vehicle usage was in capital city urban areas, 11 per cent in provincial urban areas, 34 per cent in other areas of the State, and 4 per cent in other States or Territories.

The following two tables show the average annual kilometres travelled, classified by type of vehicle. Business kilometres, which are given in the first table, include kilometres travelled for hire and reward, or charged to a business expenses, or for which a rate per kilometre or other allowance is received.

Average Annual Kilometres *(a)* by Vehicles Registered in New South Wales: Type of Vehicle by Purpose, Year ended 30 September 1985

Type of vehicles	*Purpose*							
	Business (a)		*To and From Work*		*Private*		*Total*	
	'000 kilo-metres	*Standard error per cent*	*'000 kilo-metres*	*Standard error per cent*	*'000 kilo-metres*	*Standard error per cent*	*'000 kilo-metres*	*Standard error per cent*
Cars and station wagons	12.4	4.4	6.3	2.9	8.9	2.1	15.4	1.6
Utilities and panel vans	17.4	4.3	7.3	5.6	7.4	5.0	18.5	2.9
Rigid trucks: tare weight —								
less than 3 tonnes	16.4	4.4	5.0	12.9	3.7	12.6	17.0	4.0
3 and less than 4 tonnes	15.3	4.1	2.9	13.3	2.5	19.5	15.7	4.0
4 tonnes and over	23.6	3.4	4.2	12.0	1.5	16.8	24.1	3.4
Total rigid trucks	18.3	2.6	4.7	10.4	3.5	11.8	18.8	2.5
Articulated trucks: tare weight —								
less than 9 tonnes	16.7	7.4	6.0	32.2	4.9	22.2	17.2	7.6
9 and less than 11 tonnes	32.5	5.7	6.0	13.9	3.9	18.7	33.0	5.6
11 tonnes and over	12.7	1.0	1.0	7.7	0.2	11.8	12.7	1.0
Total articulated trucks	16.7	1.2	1.3	6.4	0.3	8.2	16.7	1.2
Other truck-type vehicles	5.0	6.1	0.5	35.1	0.3	52.5	5.1	6.0
All trucks	161.1	1.6	29.6	6.5	30.5	7.0	170.3	1.6
Motor cycles	3.9	16.2	4.1	6.8	4.8	8.2	7.3	6.0
Total vehicles	**950.7**	**2.2**	**1,598.8**	**1.6**	**2,488.3**	**0.5**	**2,873.0**	**0.1**

(a) See text preceding table.

Average Annual kilometres by Vehicles *(a)* Registered in New South Wales, 1963-85 '000 kilometres

Type of Vehicle	*Twelve months ended*					
	31 December 1963 (b)	*31 December 1971 (b)*	*30 September 1976*	*30 September 1979*	*30 September 1982*	*30 September 1985*
Cars and station wagons	13.8	16.1	15.6	14.8	15.4	15.4
Utilities and panel vans	13.6	*(c)*17.3	16.3	16.9	18.1	18.5
Trucks	14.4	19.6	19.5	22.2	24.6	24.1
Motor cycles	n.a.	7.2	5.2	6.5	6.7	7.3
Total vehicles	..	**16.1**	**15.4**	**15.2**	**15.9**	**15.9**

(a) Excludes buses used commercially. *(b)* Includes Australian Capital Territory. *(c)* Survey classification was "Light commercial type vehicles — open, closed".

TRANSPORT ACCIDENT COMPENSATION SCHEME

From 1 July 1987 owners of motor vehicles are required, under the Transport Accidents Compensation Act 1987 to contribute to "Transcover", the New South Wales Transport Accident Compensation Scheme, which insures their vehicles against liability, in respect of death or bodily injury caused to other persons, arising out of the use of their vehicles. The Act also applies to government-owned trains and ferries.

The Motor Vehicles (Third Party Insurance) Act 1942, which previously applied, continues to apply in respect of accidents which occurred before 1 July 1987.

Contributions, which are paid when the vehicle is registered, are fixed by the State Government and are reviewed annually. Rates vary depending on the type of vehicle and the location at which it is usually garaged. Concessions apply for vehicles owned by pensioners and eligible, incapacitated ex-servicemen and women.

Transport accident insurance policies issued in other States or in the Australian Capital Territory and the Northern Territory are accepted in respect of motor vehicles visiting New South Wales.

Particulars of transport accident and other motor vehicle insurance business transacted in New South Wales are given in the subdivision "General Insurance" in Chapter 24.

MOTOR DRIVERS' LICENCES

Drivers of motor vehicles and riders of motor cycles are required to be licensed. Licences may be issued for periods of one year or five years to eligible licence holders. To qualify for a licence, applicants must pass an eyesight test, a practical driving test, and a written test on the traffic regulations, available in English and nine other community languages. To aid in the assessment of the ability of handicapped persons who wish to obtain a driver's licence, special equipment is used to test various driving aids installed in their cars. A licence may be refused, suspended, or revoked on grounds of physical disability or failure to observe the

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Million kilometres	*(b)*23,205.3	*(c)*4,996.0	15,658.5	43,859.8	1,960.4	45,820.1
Standard error (per cent)	*(b)*2.2	*(c)*5.0	2.8	1.3	6.7	1.3
Average annual kilometres —						
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Standard error (per cent)	*(b)*2.0	*(c)*4.4	2.6	1.3	6.0	1.3
			Registered in any State or Territory			
Total annual kilometres —						
Million kilometres	74,186.5	17,047.0	42,421.3	133,654.8	6,772.6	140,427.4
Standard error (per cent)	1.1	2.3	1.5	0.7	3.4	0.7
Average annual kilometres —						
'000 kilometres	11.4	6.2	8.1	15.1	4.7	15.8
Standard error (per cent)	1.0	2.1	1.4	0.7	3.1	0.7

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	Purpose							
	Business (a)		*To and From Work*		*Private*		*Total*	
Type of vehicles	*'000 kilo-metres*	*Standard error per cent*	*'000 kilo-metres*	*Standard error per cent*	*'000 kilo-metres*	*Standard error per cent*	*'000 kilo-metres*	*Standard error per cent*
Cars and station wagons	12.4	4.4	6.3	2.9	8.9	2.1	15.4	1.6
Utilities and panel vans	17.4	4.3	7.3	5.6	7.4	5.0	18.5	2.9
Rigid trucks: tare weight —								
less than 3 tonnes	16.4	4.4	5.0	12.9	3.7	12.6	17.0	4.0
3 and less than 4 tonnes	15.3	4.1	2.9	13.3	2.5	19.5	15.7	4.0
4 tonnes and over	23.6	3.4	4.2	12.0	1.5	16.8	24.1	3.4
Total rigid trucks	18.3	2.6	4.7	10.4	3.5	11.8	18.8	2.5
Articulated trucks: tare weight —								
less than 9 tonnes	16.7	7.4	6.0	32.2	4.9	22.2	17.2	7.6
9 and less than 11 tonnes	32.5	5.7	6.0	13.9	3.9	18.7	33.0	5.6
11 tonnes and over	12.7	1.0	1.0	7.7	0.2	11.8	12.7	1.0
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(a) See text preceding table.

Average Annual kilometres by Vehicles *(a)* Registered in New South Wales, 1963-85 ’000 kilometres

	Twelve months ended					
Type of Vehicle	*31 December 1963 (b)*	*31 December 1971 (b)*	*30 September 1976*	*30 September 1979*	*30 September 1982*	*30 September 1985*
Cars and station wagons	13.8	16.1	15.6	14.8	15.4	15.4
Utilities and panel vans	13.6	*(c)*17.3	16.3	16.9	18.1	18.5
Trucks	14.4	19.6	19.5	22.2	24.6	24.1
Motor cycles	n.a.	7.2	5.2	6.5	6.7	7.3
Total vehicles	..	**16.1**	**15.4**	**15.2**	**15.9**	**15.9**

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Licences are issued in several classes. A national system of licence classifications endorsed by the Australian Transport Advisory Council was adopted for licence classes in N.S.W. on 1 August 1985.

Drivers of public passenger vehicles are required to undergo periodical medical and eyesight examinations.

The number of drivers' and riders' licences in force at 30 June 1986 were 3,205,883 and 311,018 respectively. Drivers' licences comprised 2,621,616 Class One A licences, 564,326 other licences and 19,941 taxicab drivers' licences in force in the Sydney, Newcastle and District, and Wollongong Transport Districts.

During 1985-86, in addition to 7,022 provisional licences cancelled, the Commissioner suspended or cancelled 12,035 licences under the "points system" for traffic offences, 679 for medical impairments, and 1,626 on other grounds. Appeals against suspensions, cancellations, and refusals of licences (including provisional licences) were successful in 1,569 cases. Details of persons disqualified from driving by courts are given in the subdivision "Driving Offences" later in this chapter.

A new system of graduated drivers and riders licences, based on the licence holder's driving or riding record, will be introduced progressively from early 1988. Licence cards, bearing the holder's photograph and colour-coded to indicate driving experience and traffic infringement record, will be issued for periods of from one to five years.

A learner's permit will be issued, subject to satisfactory completion of a written test, for varying periods of up to twelve months according to age to enable potential licensees to reach the required standard of driving proficiency. Learner drivers may obtain a learner's permit at the age of 16 years; however, learner riders must be aged 16 years and 9 months to obtain a permit.

After holding a learner's permit for the required minimum period and passing a practical driving test, a driver or rider will be issued with a provisional licence for one year. It is subject to cancellation for a three-month period, if during the first year's driving experience, the provisional licensee exceeds the limit of driver demerit points imposed for reported traffic offences. This limit is currently under review. (Details of the driver demerit points scheme in force during 1985-86 are given in New South Wales Year Book No. 70.) As an alternative to being unlicenced for three months, provisional licensees may elect to revert to a learner's permit for three months and again become eligible for another provisional licence.

A one-year unrestricted licence will be issued following one year of successfully holding a provisional licence and a five-year licence will be issued following five continuous years of successfully holding single year licences.

Probationary licences will be issued for one year to drivers and riders other than provisional licensees who exceed the driver demerit points limit and elect a probationary licence as an alternative to three month's licence cancellation. Probationary licences will also be mandatory for persons applying for their first licence after a period of disqualification.

MOTOR TAXES, FEES, AND CHARGES

The proceeds of taxes, fees, and charges relating to motor transport are shown in the section "State Motor Tax" in Chapter 23 "Public Finance".

Motor Vehicle Taxes

Motor vehicle tax in New South Wales is levied on motor vehicles, except motor cycles, according to weight. Motor cycles are charged a flat tax. These taxes may be charged at either "private" or "business" rates, depending on their type of usage or whether registered in a business name. They are paid when a certificate of registration is issued or renewed.

This tax is collected on behalf of the Department of Main Roads for the maintenance and construction of roads and is subject to automatic annual indexing in line with rises in the costs of roadworks and materials.

Exemptions or concession rates apply to primary producers, ministers of religion, pensioners, eligible incapacitated ex-service men and women and certain selected organisations such as charities and government instrumentalities.

The motor vehicle taxes collected during 1985-86 amounted to $357.9m — of which $355m was credited to the funds of the Department of Main Roads and $2.9m to the Public Vehicles Fund.

Registration Fees

Fees for the registration of motor vehicles are also payable when the certificate of registration is issued or renewed.

Inspection Fees

In January 1983, a scheme known as the "Heavy Vehicle Inspection Scheme" (HVIS) was introduced, whereby an inspection fee is charged by the Department of Motor Transport for the annual inspection of heavy vehicles. Initially, the scheme applied only to vehicles registered in the Wollongong and South Coast areas, but in 1985 it was extended to cover other areas of the State.

Drivers' Licences

Fees are charged for a licence to drive a motor vehicle or to ride a motor cycle. Under the new licence card scheme a secondary licence a will be issued at no fee provided the licensee is the holder of a current licence of either type.

From the first issue of the licence cards, the fee charged for a learner's permit will be $40, including $21 for the driving test fee; for provisional and one-year unrestricted licences, $25; and for five year licences, $50. The fee for probationary one-year licences will be $100, and will apply from 1 July, 1988. All licence fees will be subject to annual indexation, applying from 1 July each year.

Eligible pensioners will be issued with any type of licence free of charge.

Service Licences

Fees are payable in respect of privately-owned bus services within the Metropolitan, Newcastle and District, and Wollongong Transport Districts as described in the Section "Public Motor Vehicles".

Fees and Charges under the State Transport (Co-ordination) Act 1931

The annual licence fee payable for vehicles licensed to carry passengers or goods is $7; agents of persons operating road transport services are charged an annual licence fee of $12.

ROAD ACCIDENTS AND ROAD SAFETY

Road Accidents

In New South Wales, road accidents resulting in personal injury, death, or damage to property exceeding $500 must be reported to the police as soon as practicable and within twenty-four hours. Those accidents which involve casualties, and/or where at least one vehicle is towed from the scene of the accident are analysed by a traffic accident research group in the Traffic Authority of New South Wales, which undertakes scientific research into traffic accidents. The information shown in the following tables was obtained from the Authority.

The number of road accidents and casualties, and their ratio to vehicles registered and to mean estimated resident population are shown in the following table for each of the last six years.

Road Accidents *(a)* Involving Casualties, N.S.W. (*Source*: Traffic Authority of New South Wales) (Year ended 30 June)

Item	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Number of accidents *(b)*	9,936	9,616	8,353	8,856	7,461	8,043
Per 1,000 vehicles registered	3.8	3.5	3.0	3.1	2.5	2.7
Per 10,000 of mean population *(c)*	19.1	18.2	15.7	16.5	13.6	14.5
Number of persons killed	1,309	1,337	1,066	1,024	995	1,029
Per 1,000 vehicles registered	0.50	0.48	0.38	0.36	0.34	0.34
Per 10,000 of mean population *(c)*	2.51	2.54	2.00	1.90	1.82	1.86
Number of persons injured *(d)*	11,474	11,129	9,511	10,110	8,349	9,042
Per 1,000 vehicles registered	4.37	4.00	3.37	3.52	2.81	3.0
Per 10,000 of mean population *(c)*	22.04	21.12	17.83	r18.68	15.24	16.3

(a) Comprises reported accidents which involve casualties and/or where at least one vehicle is towed from the scene of the accident. *(b)* Includes only those accidents in which at least one person was killed or admitted to hospital. *(c)* Mean estimated resident population. *(d)* Includes only those persons admitted to hospital.

Classes of Road Users Killed and Injured in Road Accidents

In 1985-86 motor drivers, motor cyclists, and passengers comprised 80 per cent of the persons killed and 82 per cent of those injured in road accidents, while pedestrians constituted 19 per cent of the fatal cases and 14 per cent of the injured. A classification of persons killed or injured in road accidents in the last six years is given in the following table.

Casualties in Road Accidents N.S.W.: Classes of Road Users Killed or Injured (*Source*: Traffic Authority of New South Wales)

Year ended 30 June	*Motor drivers*	*Motor cyclists*	*Pedal cyclists*	*Pedestrians*	*Passengers (a)*	*Others (b)*	*Total*
			Persons killed				
1981	502	157	25	257	366	2	1,309
1982	492	159	20	276	390	—	1,337
1983	389	160	23	221	273	1	1,067
1984	341	147	26	231	278	1	1,024
1985	394	125	17	196	262	1	995
1986	393	146	19	191	280	—	1,029
			Persons injured *(c)*				
1981	4,294	1,700	322	1,412	3,732	14	11,474
1982	4,009	1,723	346	1,422	3,620	9	11,129
1983	3,289	1,663	316	1,353	2,882	8	9,511
1984	3,523	1,824	369	1,472	2,910	12	10,110
1985	2,953	1,445	303	1,189	2,452	7	8,349
1986	3,360	1,360	381	1,226	2,711	4	9,042

(a) Includes motor cycle pillion riders. *(b)* Includes pedal cycle passengers, drivers and riders of animals. *(c)* Includes only those persons admitted to hospital.

Road Safety

A comprehensive system of road signs and traffic lines on major highways is maintained by the Department of Main Roads, and contributes materially to the safe use of the roads.

It is compulsory, except where exemptions have been granted by the Commissioner, for motor cyclists and pillion riders to wear safety helmets and for drivers and passengers of motor vehicles to use seat belts where fitted. Restraints must be used for children being carried in the front seat of a motor vehicle, except where exempt on medical grounds or where no rear seat is available. All vehicles first registered after 1 January 1965 must have seat belts fitted for the front seats, and those first registered after 1 January 1971, on the back seats.

The Department of Motor Transport commenced testing a short off-road instruction course in February 1984, principally to train motor cyclists in basic riding skills before they obtain a learner's permit. The course is also open to holders of a current learner's permit.

The Australian Transport Advisory Council, a co-ordinating and advisory committee at Ministerial level, established by the Commonwealth and State Governments to consider policy matters relating to transport operations, co-ordination, and development, has set up a number of advisory committees, one of which is the Advisory Committee on Safety in Vehicle Design. This Committee makes recommendations to the Council in the form of Australian design rules for motor vehicle safety. These design rules set out detailed technical specifications of each safety feature and include appropriate dates for implementation in the various classes of vehicles. The safety features covered in design rules endorsed by the Council include seat belts and seat belt anchorage points, direction turn signal lamps, reversing signal lamps, head restraints, collapsible steering columns and motorcycle and commercial vehicle braking systems.

DRIVING OFFENCES

The statistics in the following two tables are obtained from records of driving offences committed in New South Wales, compiled by the Department of Motor Transport.

Drivers convicted of specified major offences such as driving under the influence of alcohol are, by law, disqualified automatically for specified periods unless the courts order longer or shorter periods of disqualification. Courts may also impose a period of disqualification for offences which are not subject to automatic disqualification.

Driving Offences Involving Automatic Disqualification from Holding Driver's Licence: Convictions *(a)* in N.S.W.
(*Source*: Department of Motor Transport)

Year ended 30 June	*Culpable driving*	*Grievous bodily harm by negligent act*	*Drunken driving, etc. (b)*	*Dangerous driving*	*Failure to stop after accident (c)*	*Driving whilst disqualified*	*Breach of recognisance*	*Total*
1981	200	30	22,271	2,172	60	2,226	n.a.	26,959
1982	270	62	26,109	2,286	64	2,854	n.a.	31,645
1983	209	50	20,994	2,452	66	3,176	9	26,956
1984	114	81	19,252	2,727	66	2,991	4	25,235
1985	287	52	18,255	2,732	69	2,745	4	24,144
1986	227	66	21,276	3,023	80	3,139	9	27,820

(a) In addition, a number of offences are found proved but the offenders are discharged without conviction under Section 556*A* of the Crimes Act. These numbered 1,511 in 1985-86 (including 1,364 for "drunken driving, etc."). No adjustment has been made for successful appeals. *(b)* Comprises "Driving, or attempting to drive, whilst under influence of alcohol or a drug", "Exceeding prescribed concentration of alcohol", and "Refusing breath test analysis'; convictions for these offences in 1985-86 were 650, 20,209 and 343 respectively. See text following table. *(c)* Involving injury.

A system of breath analyses for persons suspected of driving or attempting to drive a motor vehicle while having the prescribed concentration of alcohol in their blood is in operation. In 1980 the prescribed concentration of alcohol was changed from 0.08 to 0.05 grams or more of alcohol in 100 millilitres of blood. The system involves a preliminary roadside test and, if this proves positive, a more accurate breath analysis at a police station.

In addition, a system of random breath testing was introduced on 17 December 1982. Random breath testing empowers any member of the police force to require a driver or rider to undergo a roadside breath test. In conjunction with random breath testing, a three-tier system of penalties, based on blood alcohol concentration, was introduced, with increased penalties being provided for alcohol-related and other serious offences. The prescribed concentration of alcohol for the first tier is 0.05 to 0.08, for the second, 0.08 to 0.15, and for the third, 0.15 or more. Penalties provided for the first offence are fines up to $500, $1,000 and $1,500 respectively, disqualification of driver's licence, and, for second and third tier offences, imprisonment; the level of penalties being determined by the Court. Second and subsequent offences within five years carry more severe penalties. Penalties are also prescribed for persons who refuse to undergo a roadside test or breath analysis.

From 2 April 1985, a lower prescribed concentration of alcohol of 0.02 to less than 0.05 was applied to the holders of learners' permits and first year provisional licences with fines of up to $500 for a first offence and $1,000 for second offences being imposed, together with periods of disqualification ranging from three to twelve months. From the same date, it became an offence for licensed drivers with a blood alcohol content of 0.05 or more to occupy the seat next to the holder of a learner's permit who is driving a motor vehicle. A fine not exceeding $1,000 is applicable in these cases.

Details of convictions, etc., in New South Wales for driving offences which do not involve automatic disqualification from driving are shown, for recent years, in the next table. Police officers are empowered to serve on-the-spot traffic infringement notices (setting out the offence and the standard fine for that offence) for the less serious driving offences and persons charged with these offences may elect to pay the fine without Court appearance — the number of fines paid in this way are also shown in the table.

Driving Offences not Involving Automatic Disqualification from Holding Driver's Licence: Convictions and Traffic Infringement Penalties Paid *(a)* in N.S.W.
(*Source*: Department of Motor Transport)

	Convictions by court					*Traffic infringement penalty paid (b)*			
Year ended 30 June	*Failure to stop after accident (c)*	*Negligent driving*	*Exceeding speed limit*	*Other offences*	*Total*	*Negligent driving*	*Exceeding speed limit*	*Other offences*	*Total*
1981	1,467	9,674	27,175	35,312	73,628	28,871	141,765	98,900	269,536
1982	1,269	8,784	22,178	34,829	67,060	28,356	182,851	123,677	334,884
1983	520	6,824	33,070	39,133	79,547	26,732	230,987	120,484	378,203
1984	665	6,164	32,582	39,412	78,823	24,030	194,419	98,458	316,907
1985	1,007	9,381	49,169	47,551	107,108	30,834	225,173	105,533	361,540
1986	1,233	10,443	34,581	42,382	88,639	33,403	224,210	107,178	364,791

(a) In addition, a number of offences are found proved but the offenders are discharged without conviction under Section 556*A* of the Crimes Act. These numbered 2,480 in 1985-86. *(b)* See text above table. Infringement notices are not given for the offence "Failure to stop after accident". *(c)* In some cases this offence involves automatic disqualification (see previous table).

Further information about traffic offences is given in Chapter 9, "Law, Order, and Public Safety".

AIR TRANSPORT

CONTROL OF AIR TRANSPORT

Both the Commonwealth and the State Governments may exercise controls over intrastate domestic aviation by virtue of their respective powers under the Constitution. The New South Wales Government licenses air services within its borders under the New South Wales Air Transport Act 1964. Accordingly, both Commonwealth and State requirements must be satisfied before air services within New South Wales may be conducted. The Commonwealth alone regulates interstate aviation and negotiates the provision of international air services with the Governments of other countries.

The Commonwealth, through the Department of Aviation, imposes safety and operational controls on the Australian aviation industry and in some cases regulates the industry on economic grounds. In New South Wales the Department of Aviation is represented by its Regional Director in Sydney. A more detailed description of the Commonwealth's role is contained in the Australian Year Book No. 70, 1986.

INTERSTATE AND INTRASTATE AIR SERVICES

Most airline services from Sydney to major centres throughout Australia are provided by the Commonwealth-owned Australian National Airlines Commission, trading as Australian Airlines (formerly TAA) and the privately-owned Ansett (a division of Ansett Transport Industries (Operations) Pty Ltd, a wholly-owned subsidiary of Ansett Transport Industries Ltd), in accordance with the two-airline policy.

East-West Airlines, which is based in Tamworth, and Air New South Wales, (part of the Ansett group of airlines) which is based in Dubbo, provide regional airline services connecting Sydney to major centres within the State as well as between such centres. Also, East-West Airlines provides airline services from Sydney to most States, the mainland Territories and Norfolk Island while Air New South Wales provides more limited services from Sydney to centres in other States and the Australian Capital Territory.

Commuter operators provide other intrastate services, and some interstate services, to centres which in many cases are not linked by airlines services with Sydney or their major regional centre. Most commuter services are provided by New South Wales based operators, of which there were ten at 1 March 1987. Commuter operators generally operate under supplementary airline licences which authorise scheduled services using aircraft with capacity to carry no more than 38 passengers or a 4,200 kg payload.

For a general description of the Commonwealth Government's two-airline policy, the operations of regular scheduled international and domestic services and of regular commuter services, refer to Australian Year Book No. 70, 1986.

In addition to airline and commuter services, there is a wide range of activities undertaken by the aviation industry. These activities are classified under the Air Navigation Regulations into charter, aerial work and private air service operations. Some 200 operators based in New South Wales hold charter licences. These charter operators generally hold aerial work licences as well. No air service licence is required to conduct private operations.

Cargo, i.e. freight and mail, is carried on the regular public passenger services operated by Australian Airlines, Ansett, East-West, Air New South Wales and commuters, as well as on charter services. IPEC Aviation operates regular cargo airline services linking Sydney to Brisbane, Melbourne and Adelaide. It also operates "cargo only" charter services.

The Commonwealth's role in the economic regulation of the domestic aviation industry was recently examined by the Independent Review of Economic Regulation of Domestic Aviation, chaired by Mr Thomas May. The Review's Report was presented to the Government on 7 January 1987, and was intended to assist the Government in its consideration of options for future domestic aviation policies.

AIRCRAFT, AERODROMES, ETC.

The number of aircraft registered in New South Wales and the total registered in Australia, by class of operation, at 30 June 1986 are shown below.

Aircraft Registrations (*Source*: Department of Aviation)

Area	*Private (class 1)*	*Aerial work (class 2)*	*Charter (class 3)*	*Regular public transport (class 4)*	*Total*
New South Wales	1,256	428	323	43	2,050
Australia	4,264	1,335	1,344	138	7,081

There were 440 Commonwealth and licensed aerodromes (including aerodromes used for both civil and services purposes) in Australia at 30 June 1986. Of these, 69 (New South Wales, 10) were owned and operated by the Commonwealth Government and 371 (New South Wales, 75) were owned by local government authorities and private interests. The Commonwealth Government has a local ownership plan, under which local authorities are offered ownership of aerodromes which serve a local (rather than a national) need; the Government shares approved development and maintenance costs equally with the local authority.

The Sydney (Kingsford Smith) Airport at Mascot, 8 kilometres south of the centre of Sydney, is the major international airport in Australia and the principal terminal for domestic services in New South Wales. A curfew is enforced at the airport that allows only approved types of aircraft to take off or land between 11:00 PM and 6:00 AM. A list of overseas airlines operating international services to or via Sydney is provided in the Australian Year Book No. 70, 1986.

A site for a second major Sydney airport at Badgery's Creek, 40 kilometres west of Sydney, was announced in February 1986. Development of this site has not yet commenced.

A secondary capital city airport is located at Bankstown and 325,592 aircraft movements were recorded at this airport for the year ended 31 December 1986, making it the busiest civil airport in Australia in terms of aircraft movements.

Air Traffic Statistics

The following table shows details of domestic and international airline traffic at principal airports in New South Wales during the year ended 31 December 1986.

The second table shows details of regular scheduled international passenger and freight movements between Sydney and selected overseas city airports during the year ended 31 December 1985.

Principal Airports in New South Wales: Distance from Sydney and Scheduled Domestic and International Traffic Handled
(*Source:* Department of Aviation).

Airport	*Distance from Sydney (km)*	*Traffic during the year ended 31 December 1986 (p)*		
		Passenger movements (a)	*Freight handled (tonnes) (b)*	*Aircraft movements (c)*
Albury	452	100,165	139	6,880
Armidale	381	61,215	27	2,756
Broken Hill	932	18,282	32	594
Casino	590	62,100	352	1,936
Coffs Harbour	442	72,074	100	2,371
Cooma	330	26,698	13	1,263
Dubbo	309	63,838	287	2,223
Glen Innes	477	7,619	3	706
Grafton	497	32,502	76	1,998
Griffith	472	24,450	33	1,017
Inverell	450	12,970	6	722
Kempsey	352	10,422	41	884
Merimbula	350	15,502	25	930
Moree	509	19,035	21	960
Mudgee	211	437	1	106
Narrabri	422	11,866	12	949
Narrandera	437	10,496	10	1,048
Newcastle/Williamtown	141	19,478	2	1,863
Port Macquarie	320	45,700	257	2,056
Sydney *(d)*	..	6,538,616	67,831	86,081
Sydney *(e)*	..	3,010,000	128,000	21,000
Tamworth	319	77,205	265	3,200
Taree	260	24,206	23	1,976
Wagga Wagga	367	65,697	635	1,970
Walgett	521	3,044	2	302

(a) Number of passenger embarkations and disembarkations. *(b)* The amount of freight uplifted and discharged. *(c)* Number of aircraft landings and departures. *(d)* Domestic traffic. *(e)* International traffic, excluding passengers in transit.

Distance and Scheduled International Passenger and Freight Movements between Sydney and Selected Overseas City Airports
(*Source*: Department of Aviation)

Airport	*Distance from Sydney (c) (kms)*	*Traffic during the year ended 31 December 1985 (a)*			
		Passenger movements (b)		*Freight handled (b) (tonnes)*	
		Inbound	*Outbound*	*Inbound*	*Outbound*
Abu Dhabi	12,084	2,899	2,368	1.1	736.3
Amsterdam	16,674	7,750	7,610	564.2	59.8
Athens	15,336	21,637	21,621	688.6	62.6
Auckland	2,164	276,022	280,401	14,977.6	11,455.6
Bangkok	7,543	33,255	33,896	1,716.1	1,099.9
Beijing	8,937	7,695	7,854	277.8	85.4
Belgrade	15,705	15,126	14,566	686.1	74.8
Bombay	10,162	12,091	12,391	621.1	166.1
Christchurch	2,131	87,380	84,253	3,330.7	1,505.7
Denpasar	4,624	33,269	31,246	733.2	22.3
Dubai	12,052	865	998	115.5	714.0
Frankfurt	16,511	15,005	20,449	1,913.4	787.9
Harare	11,467	7,752	6,684	137.6	106.0
Hong Kong	7,372	107,636	83,135	3,687.5	6,135.8
Honolulu	8,168	65,970	55,346	1,154.2	1,169.3
Jakarta	5,490	24,757	26,928	1,653.2	1,206.4
Johannesburg *(d)*	11,049	11,851	10,941	483.3	236.1
Kuala Lumpur	6,629	18,183	17,097	715.4	1,709.8
London	17,036	58,086	60,039	5,875.3	881.6
Los Angeles	12,065	66,479	75,303	11,124.0	3,059.8
Manila	6,258	34,142	29,450	2,766.2	981.1
Nadi	3,174	69,155	70,523	442.3	2,573.8
Noumea	1,982	14,490	14,639	444.0	1,207.7
Papeete	6,128	15,677	17,753	275.9	397.2
Port Moresby	2,751	22,182	20,148	370.6	1,167.3
Port Vila	2,484	10,316	8,811	20.4	84.2
Rome	16,327	18,952	19,054	987.5	311.8
San Francisco	11,952	35,564	32,459	2,368.7	1,566.5
Singapore	6,302	138,853	129,414	4,654.6	6,796.3
Tokyo	7,807	82,443	89,708	5,669.0	4,911.9
Vancouver	12,504	13,753	14,763	370.7	772.3
Wellington	2,233	42,707	41,187	1,774.8	1,138.3

(a) Does not include charter services. *(b)* Uplift and discharge data shown is based on details recorded by flight number. Typically, flight numbers change when an aircraft reaches its home country. Therefore, for the ports shown in this table the Qantas data included is true uplift and discharge data. For other airlines, true uplift and discharge data is shown only for those ports between Australia and a port in the operator's home country. *(c)* Great circle distance (the shortest distance between the two cities measured on the earth's surface at sea level). *(d)* Includes traffic to and from Mauritius.

CIVIL AVIATION ACCIDENTS

Accidents and incidents involving civil aircraft in Australian territory must be reported to the Commonwealth Department of Aviation for investigation by the Bureau of Air Safety Investigation. The following table shows the number of casualty accidents and persons killed or seriously injured in civil aircraft accidents which occurred in New South Wales and Australia.

Civil Aircraft Accidents and Casualties *(a)*, N.S.W. and Australia (*Source*: Department of Aviation)

	New South Wales				*Australia*			
Nature of flight	*1983*	*1984*	*1985*	*1986*	*1983*	*1984*	*1985*	*1986*
	Number of casualty accidents*(b)*							
Regular air services	—	—	—	—	—	—	—	—
Charter	1	2	3	1	4	6	6	4
Aerial work —								
Agricultural	4	2	1	5	6	2	3	7
Instructional	—	—	—	2	1	—	—	3
Other	—	3	2	—	10	12	6	6
Private	6	3	5	4	17	12	17	16
Gliding	4	2	1	—	6	9	1	3
Total casualty accidents	**15**	**12**	**12**	**12**	**44**	**41**	**33**	**39**
	Persons killed							
Regular air services	—	—	—	—	—	—	—	—
Charter	1	1	5	1	15	11	7	3
Aerial work —								
Agricultural	1	1	1	1	3	1	1	3
Instructional	—	—	—	1	—	—	—	3
Other	—	4	—	—	7	12	7	10
Private	6	6	6	6	22	13	32	24
Gliding	—	—	1	—	—	8	1	1
Total persons killed	**8**	**12**	**13**	**9**	**47**	**45**	**48**	**44**
	Persons seriously injured							
Regular air services	—	—	—	—	—	—	—	—
Charter	—	1	4	—	3	5	8	7
Aerial work —								
Agricultural	3	1	—	4	3	1	2	4
Instructional	—	—	—	1	2	—	—	1
Other	—	6	3	—	7	10	8	4
Private	2	3	5	3	6	10	10	13
Gliding	5	2	—	—	8	4	—	2
Total seriously injured	**10**	**13**	**12**	**8**	**29**	**30**	**28**	**31**

(a) Excludes all accidents to Australian aircraft overseas; includes all accidents to overseas registered aircraft that occur in Australia. Excludes parachutists killed or injured on contact with earth after an uninterrupted fall. *(b)* Includes all accidents involving death or serious injury.

COMMUNICATION

Public communication services within and to and from Australia are provided by four separate statutory authorities, namely the Australian Postal Commission (which provides all postal services within Australia and to overseas countries), the Australian Telecommunications Commission (which provides telecommunications services within Australia), the Overseas Telecommunications Commission (which provides telecommunications services to overseas countries) and Aussat Pty. Ltd. (which operates a national communications satellite system for Australia). The first two Commissions were established in 1975 under the *Postal Services Act 1975*, the *Telecommunications Act 1975*, and the *Postal and Telecommunications Commissions (Transitional Provisions) Act 1975*. The Overseas Telecommunications Commission was established in 1946, under the *Overseas Telecommunications Act 1946*.

The Department of Communications was established in December 1975 as the Postal and Telecommunications Department. The Department was given its current name in November 1980. It provides policy advice on all matters relating to the provision of postal, telegraphic, telephonic and broadcasting services, and has a planning, licensing and regulatory function in the administration of the radio frequency spectrum.

POSTAL SERVICES

The Australian Postal Commission trades as "Australia Post". Under the *Postal Services Act 1975* the Commission is required to pursue, as far as practicable, a financial policy to raise sufficient revenue to cover operating expenditure and to fund at least half of its capital expenditure.

Post offices and post office agencies are located throughout New South Wales and the Australian Capital Territory, the scope and nature of the services provided depending upon the local conditions. There were 1,495 post office outlets in New South Wales and the Australian Capital Territory at 30 June 1986, of which 501 were post offices (conducted exclusively by full-time Commission staff) and 994 were post office agencies. There were 13 mail centres in New South Wales and the Australian Capital Territory at 30 June 1986.

Postal services provided include private post office boxes and private and community mail bags, of which 199,741 and 6,034 respectively were being utilised in New South Wales and the Australian Capital Territory at 30 June 1986.

Particulars of persons engaged in providing postal services for the Commission in New South Wales and the Australian Capital Territory are given in the next table.

Australian Postal Commission: Persons Providing Postal Services in N.S.W. *(a)*
(Source: Australian Postal Commission)

	Official staff (b)				
At 30 June	*Permanent (full-time)*	*Temporary and part-time*	*Staff at non-official post offices (c)*	*Mail contractors (d)*	*Total*
1981	10,444	3,766	1,663	1,422	17,295
1982	10,462	3,693	1,643	1,427	17,225
1983	11,199	3,000	1,618	1,518	17,335
1984	11,651	2,694	1,629	1,366	17,340
1985	12,115	2,965	1,608	1,386	18,074
1986	12,431	2,965	1,518	1,386	18,300

(a) Includes Australian Capital Territory. *(b)* "Official staff" are those whose employment is governed by the Postal Services Act. *(c)* "Engagements at post office agencies" covers persons who are not employed under the Postal Services Act, but who are engaged on the basis of business transacted. *(d)* Mail contractors are persons or organisations who hold road mail service contracts with the Australian Postal Commission.

The following table shows particulars of articles posted in New South Wales and the Australian Capital Territory for delivery within Australia or overseas, and articles received from overseas in the last two years. Particulars of postal matter received from other Australian States are not available.

Australian Postal Commission: Postal Articles Handled in N.S.W. *(a)*
(Source: Australian Postal Commission)
('000)

	1984-85			*1984-85*		
Article	*Posted for delivery within Australia*	*Posted for delivery overseas*	*Received from overseas*	*Posted for delivery within Australia*	*Posted for delivery overseas*	*Received from overseas*
Standard letters *(b)*	989,878	33,205	56,576	1,010,476	38,374	56,063
Non-standard articles *(b)*	154,645	6,259	15,390	159,562	5,590	14,376
Security Registered articles *(c)*	913	653	1,640	942	573	1,467
Parcels (incl. registered) *(b)*	11,611	557	1,074	12,143	692	877

(a) Includes Australian Capital Territory. *(b)* Includes certified, express courier and priority paid mail. *(c)* The domestic registered mail service was replaced by the security post service from 25 October 1985. All categories of mail may be insured against loss or damage.

In October 1985, the E-Post electronic mail service was introduced offering direct access to the postal system by telephone and other electronic means. E-Post offers a letter and Lettergram preparation and delivery service with guaranteed delivery times. E-Post Bulletin provides for the transmission and delivery of a single text to a list of addresses which can be stored with E-Post in advance.

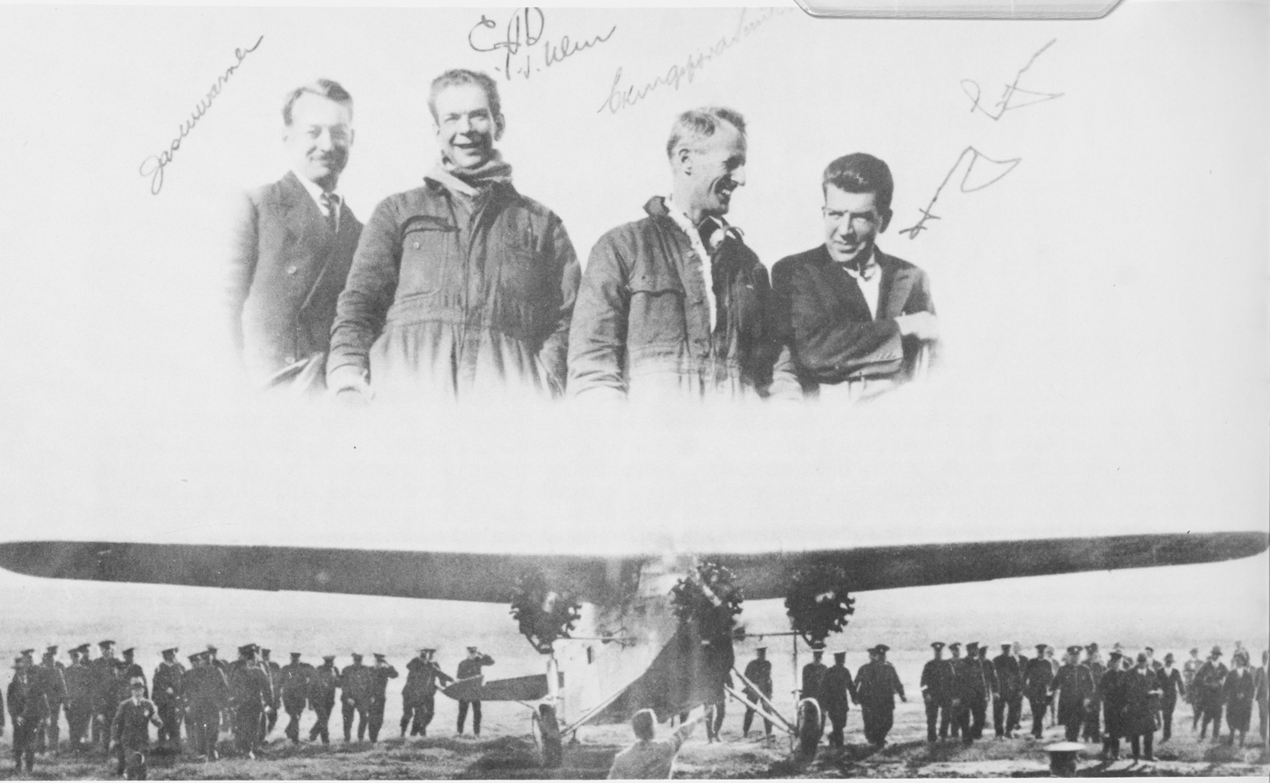
N.S.W. Government Printer

Australia and New Zealand were first joined by communication cable in 1876. The photograph above shows the laying of that cable in Botany Bay. A new cable, COMPAC, was opened in 1963 connecting Australia, New Zealand, Suva, Honolulu and Canada as part of a round-the-world large-capacity cable system providing communications free of atmospheric interference. The photograph below shows the cable-link from the cable ship "Retreiver" being hauled onto Bondi Beach in 1962. This cable stage originates at the Overseas Telecommunications Commission terminal at Paddington and runs underground to Bondi Beach. In the early 1980's this cable was replaced by the ANZCAN submarine telephone cable.

Promotion Australia

Below: The telegraph receiving room at the General Post Office, Sydney, early this century. The electric telegraph was first used by the public of N.S.W. on 26 January 1858, when the line from Sydney to Liverpool was brought into operation. This line also went to South Head. Later in 1858, Sydney, Melbourne and Adelaide were linked together by telegraph services.

Promotion Australia

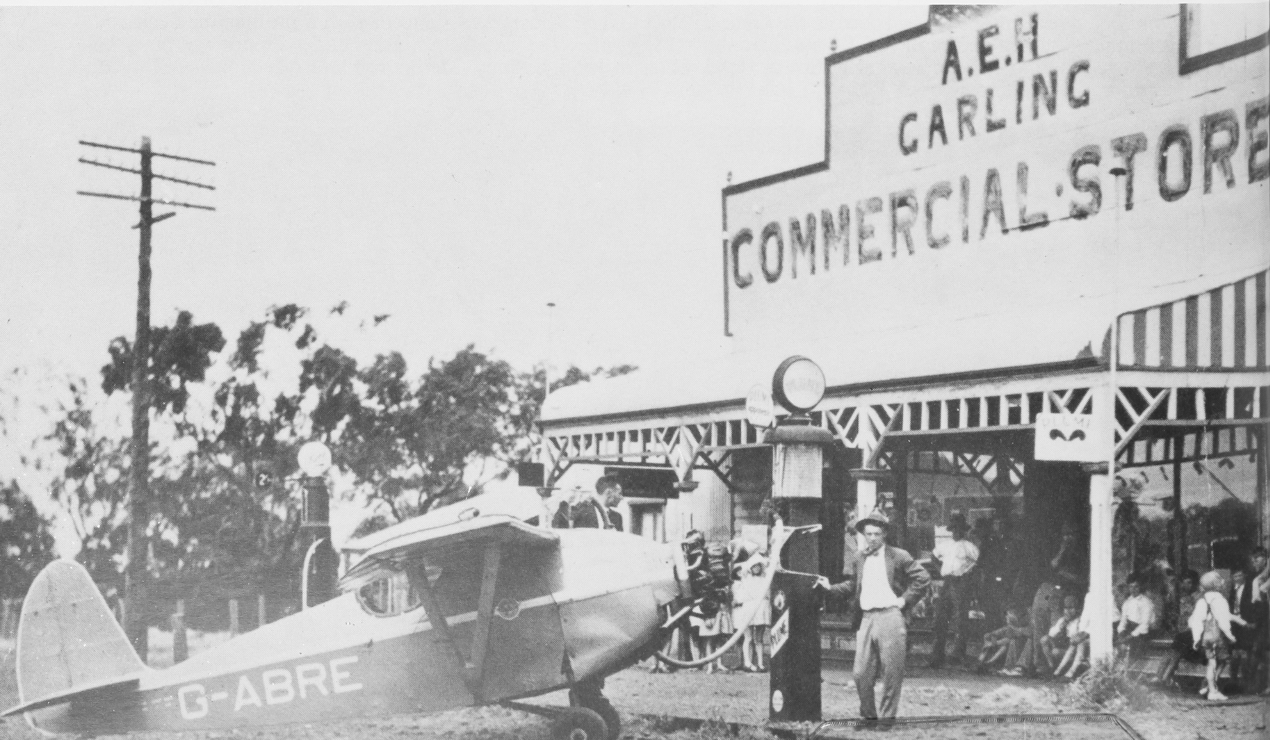


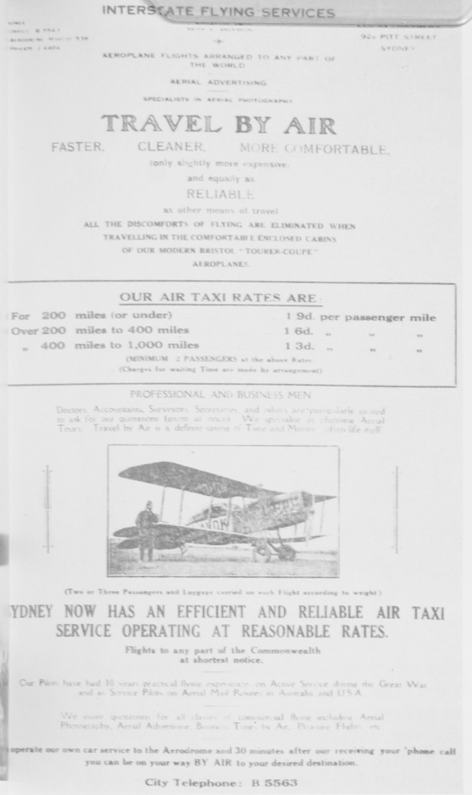
Qantas Public Affairs

Sir Charles Kingsford Smith, "Smithy" as he was known, was one of Australia's great aviators and a pioneer of aerial routes and services within Australia and between Australia, Europe and North America. Smithy, third from the left in the photograph above, together with James Warner, Charles Ulm, and Harry Lyon flew the "Southern Cross" on an historic first flight across the Pacific, from Oakland, California via Honolulu and Suva to land at Brisbane on 9 June 1928. The photograph also shows the arrival of the "Southern Cross" at Mascot Aerodrome on 10 June 1928.

Arthur Butler broke the England-Australia record air flight, flying solo in 9 days 1 hour 43 minutes in the lightest aircraft, at the time, ever to have flown over the route, a COMPER SWIFT, in 1931. The photograph below shows his plane, which he had landed in the main street of Tooraweenah, near Coonabarabran in northern New South Wales, refuelling at the petrol bowser of the local general store.

Promotion Australia




INTERSTATE FLYING SERVICES

92a PITT STREET
SYDNEY

AEROPLANE FLIGHTS ARRANGED TO ANY PART OF THE WORLD

AERIAL ADVERTISING

SPECIALISTS IN AERIAL PHOTOGRAPHY

TRAVEL BY AIR

FASTER. CLEANER. MORE COMFORTABLE.

(only slightly more expensive)
and equally as
RELIABLE
as other means of travel

ALL THE DISCOMFORTS OF FLYING ARE ELIMINATED WHEN TRAVELLING IN THE COMFORTABLE ENCLOSED CABINS OF OUR MODERN BRISTOL "TOURER-COUPE" AEROPLANES.

OUR AIR TAXI RATES ARE:

For 200	miles (or under)	1 9d. per passenger mile
Over 200	miles to 400 miles	1 6d. " " "
" 400	miles to 1,000 miles	1 3d. " " "

(MINIMUM 2 PASSENGERS at the above Rates)
(Charges for waiting Time are made by arrangement)

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Doctors, Accountants, Surveyors, Secretaries, and others are particularly invited to ask for our quotations (given at once). We specialise in planning Aerial Tours. Travel by Air is a definite saving of Time and Money, often life itself.

(Two or Three Passengers and Luggage carried on each Flight according to weight.)

YDNEY NOW HAS AN EFFICIENT AND RELIABLE AIR TAXI SERVICE OPERATING AT REASONABLE RATES.

Flights to any part of the Commonwealth at shortest notice.

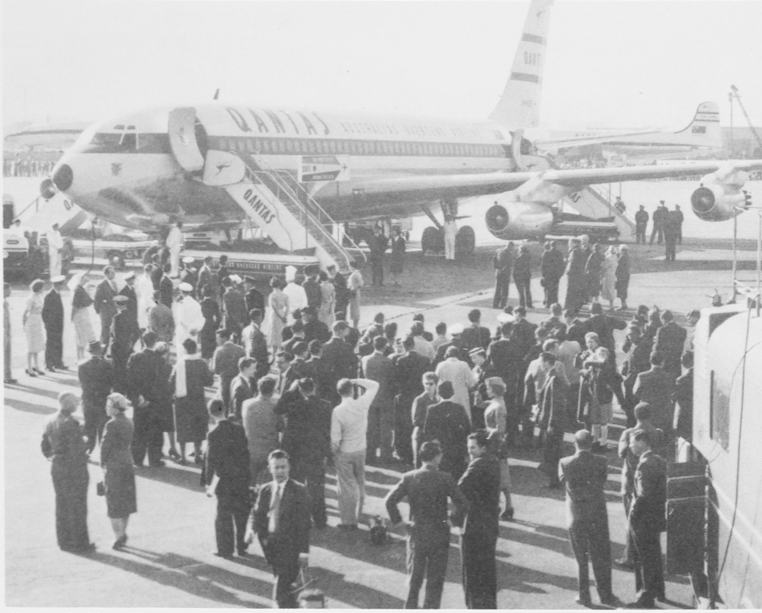
Our Pilots have had 10 years practical flying experience on Active Service during the Great War and as Service Pilots on Aerial Mail Routes in Australia and U.S.A.

We [illegible] quotations for all classes of commercial flying including Aerial Photography, Aerial Advertising, Business Tours by Air, Pleasure Flights, etc.

operate our own car service to the Aerodrome and 30 minutes after our receiving your 'phone call you can be on your way BY AIR to your desired destination.

City Telephone: B 5563

Qantas Public Affairs



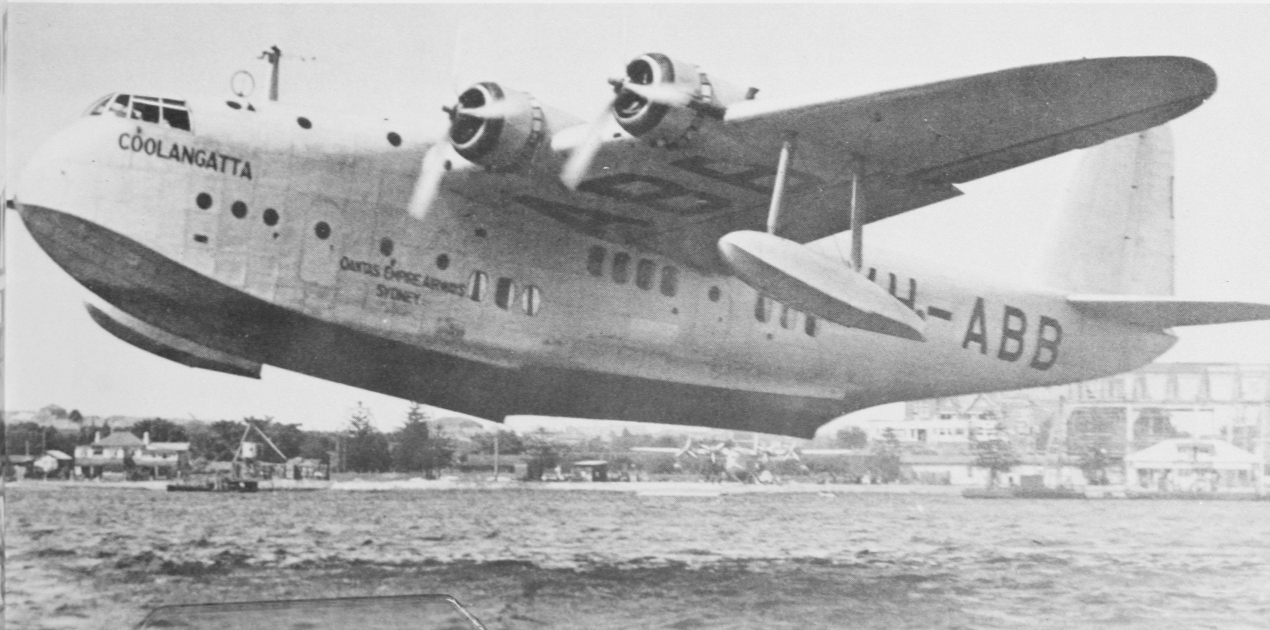
Qantas Public Affairs

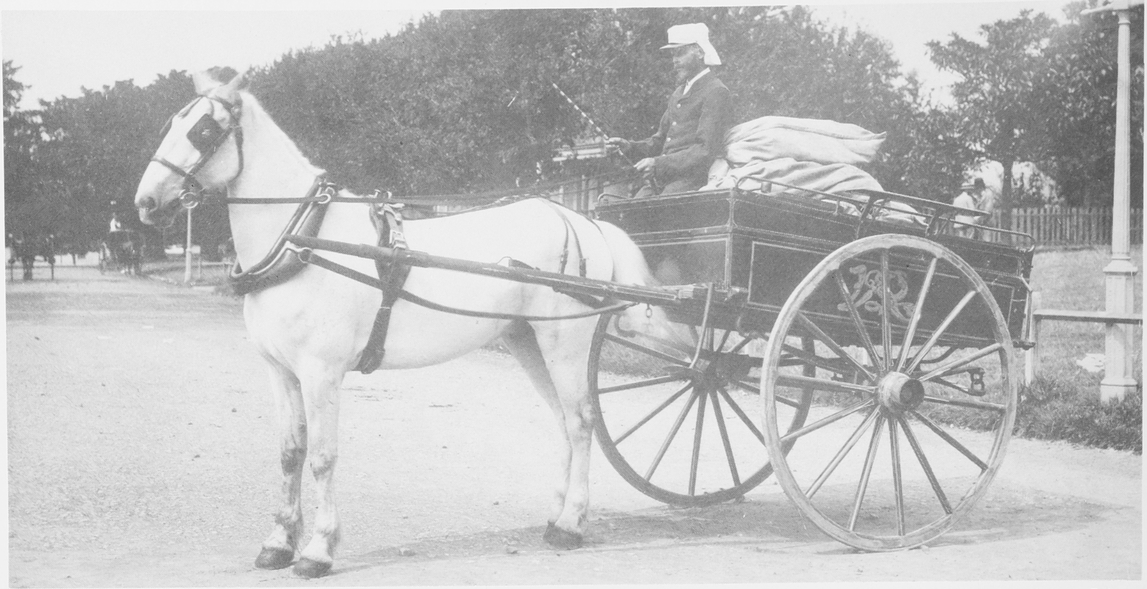
Above: The Qantas Boeing 707 jet, "City of Canberra", received a V.I.P. reception when it arrived at Sydney Airport on 2 July 1959 — the first commercial jet to land on Australian soil after a Pacific crossing. Pictured are some of the official and news representatives who welcomed the plane after its record-breaking 16 hour 10 minutes delivery flight from San Francisco. This Boeing 707 was capable of carrying 120 passengers, and on its delivery flight reached a top speed of 950 km/h.

Above left: An advertisement for one of Sir Charles Kingsford-Smith's original air services from Mascot Aerodrome, 1924. In 1929, Charles Kingsford-Smith and Charles Ulm formed Australian National Airways Pty Ltd which was the first company to fly regular services with multi-engined aircraft between Sydney, Brisbane, Melbourne and Tasmania. Operations ceased in 1931 following the disappearance of the "Southern Cloud" on a passenger flight between Sydney and Melbourne.

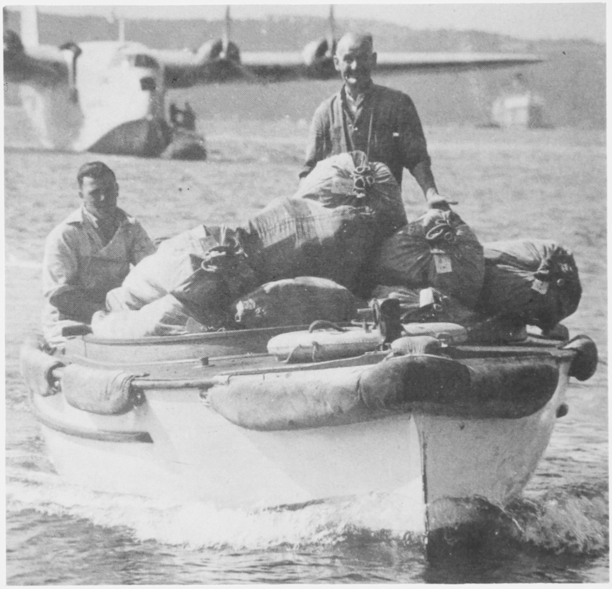
Below: A Short S23 Empire flying boat over Rose Bay Overseas Air Terminal, 1942. In March 1938 Qantas Empire Airways Ltd took delivery from England of two flying boats, the "Coolangatta" (pictured) and the "Cooee", and introduced flying boat operations to Australia on 5 July 1938 when the "Cooee" took off from Rose Bay base on the inaugural flight to England. The trip, which took 9.5 days to complete (one day slower than by conventional service), had been introduced largely by the efforts of Hudson Fysh, the Chairman of QANTAS. Flying boats offered a level of spaciousness and luxury not previously experienced, with a promenade deck and space for quoits and deck golf.

Qantas Public Affairs





N.S.W. Government Printer



Qantas Public Affairs

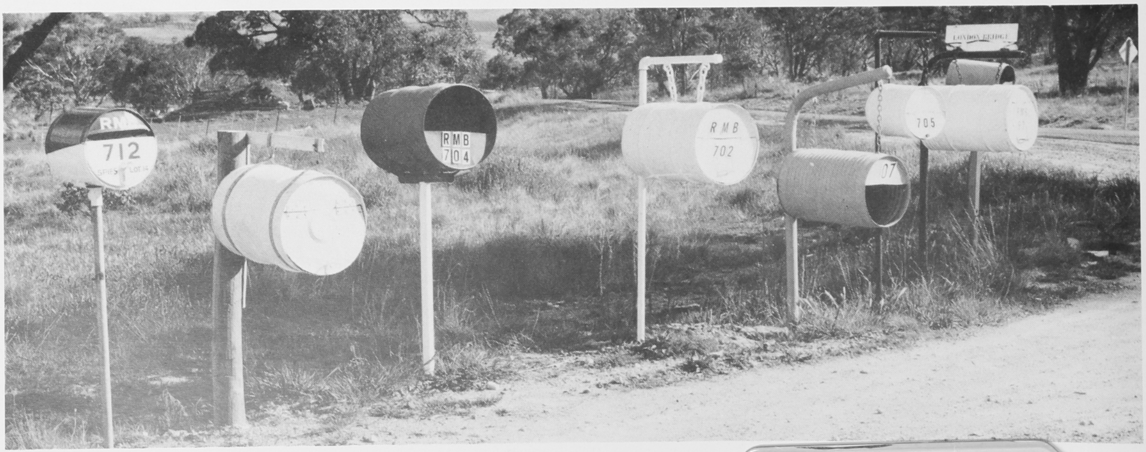
The first post office in N.S.W. was established in about 1810 by Isaac Nichols who operated from his home in lower George Street. An Act of 1825 provided for the establishment of post offices and for the fixing of rates of postage. Stamps were introduced in 1837 in the form of stamped covers or envelopes.

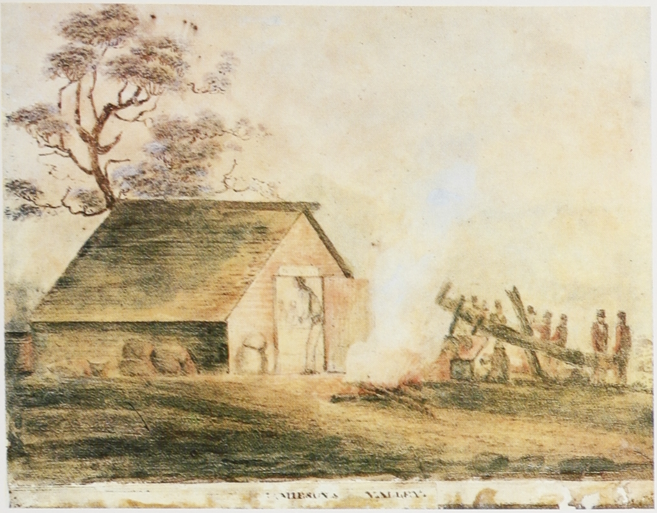
Above: G.P.O. mail cart 1890. In 1890 there were 1,338 post offices in N.S.W. with postal lines extending over 31,000 miles; by railway, tramway and steamer, over 3,000 miles; coach, over 16,400 miles; and horse, over 11,800 miles.

Left: The airmail service contract, which included a government subsidy, was keenly sought after in the 1930's. This photograph shows the 1938 Christmas mail from London being brought ashore from an Empire flying boat at Rose Bay. Thirty-one flying boats, a seaplane, and 33 land planes were engaged on the England-Australia route for Christmas 1938 and in 5 weeks they flew over 1 million miles. Some flying boats were stripped of all passenger accommodation fittings, thus allowing an extra half-ton of mail to be carried on each trip.

Below: Roadside mail boxes on the Old Cooma Road, near Queanbeyan, N.S.W. 1978

Promotion Australia



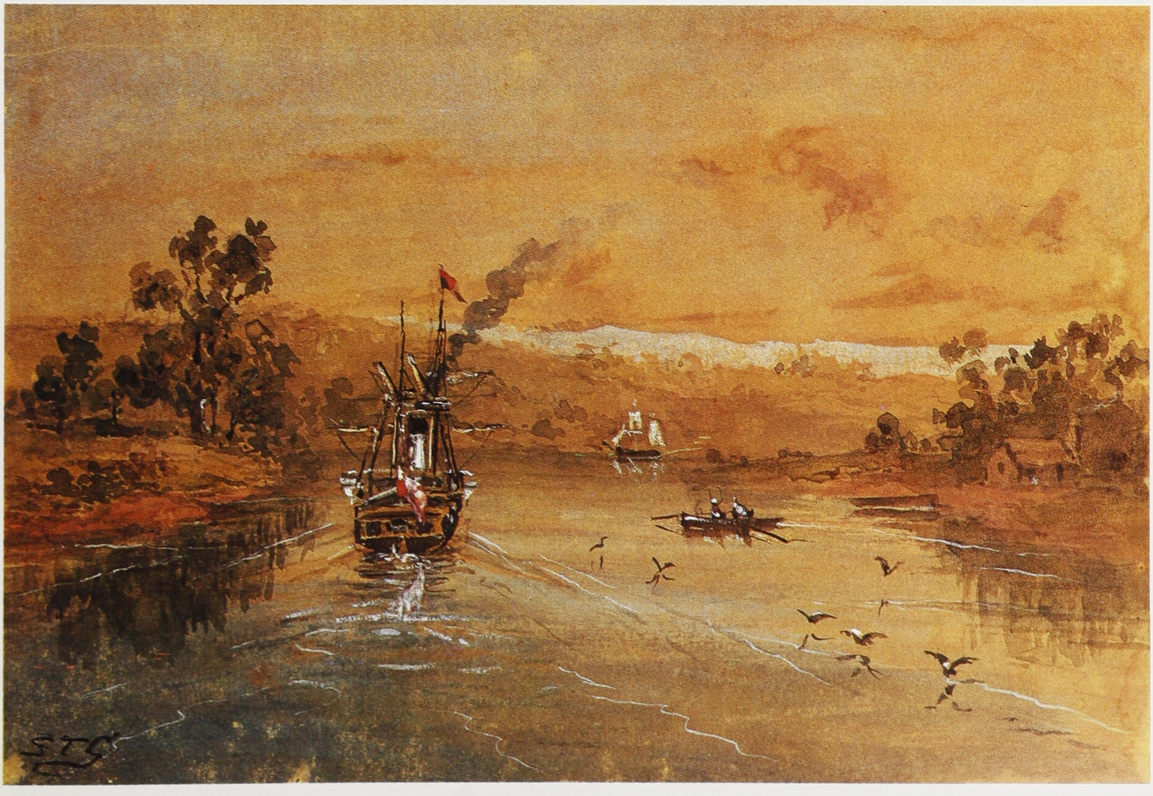


Mitchell Library, State Library of New South Wales

Left: Jamieson's Valley, a watercolour, by John Lewin in 1815. In 1813, the Deputy Surveyor of Lands, George Evans, was sent by Governor Macquarie to confirm and extend the discoveries made by Blaxland, Wentworth and Lawson who had crossed the Blue Mountains earlier in the same year. Following Evans' favourable account, Macquarie asked William Cox in 1814 to construct a road which would open up the western districts of the colony for pastoral pursuits. The road from the Nepean River to Bathurst, a distance of 101 miles, was completed in only six months and without any loss of life. On October 1, 1814 as part of his construction works, Cox began building a depot in the vicinity of Wentworth Falls. The site, which was the subject of the painting by Lewin, was described by Cox as "very pleasant, being on a ridge high enough in the front... to overlook the standing timber altogether, and at the back there is a considerable quantity of ground without a tree, and a rivulet of fine spring water running through it. The building for the store is 17 x 12, with 3 ft. sides, gable-ended, all weather-boards, and a door on the east end". In 1815, Governor Macquarie led a party over the new road to Bathurst. Lewin was included in this trip and the watercolour is one of several which he painted during it. The party camped at the site of Cox's depot and the valley in the neighbourhood was named Jamieson's Valley by Macquarie in compliment to Sir John Jamieson, of "Regentville", on the Nepean River, who had also accompanied him.

Below: A painting by Samuel T. Gill of a Sydney-Newcastle steamboat on the Hunter River. Steamers carried passengers and agricultural products of the Hunter area from Morpeth to Sydney (via Newcastle) from 1831 when the first paddle steamer "Sophia Jane" made its maiden voyage. The "William IV" was launched in the same year. The vessels took about 12 hours from Sydney to Newcastle which was faster than by road. By 1841, the Hunter River Steam Navigation Co., later called the Australasian Steam Navigation Co. (ASN), was operating with 3 vessels. ASN built its Sydney Wharf on land at Darling Harbour but in 1876 it purchased Campbell's wharf and warehouse complex at Sydney Cove. In the face of competition from the Sydney-Newcastle rail link, opened in 1889, ASN amalgamated with its main competitor in 1892. Cargo was carried until 1950 when operations ceased, mainly due to competition from road transport.

Mitchell Library, State Library of New South Wales



Promotion Australia

Above: The tracking and telemetry station at Belrose in Sydney is responsible (in conjunction with a similar station in Perth) for monitoring and controlling the status of Aussat's satellites, in position in geostationary orbit, 36,000 km above the equator. Major access points to the satellite system are through eight major-city earth stations located in each capital city. The system provides enhanced telephone, radio and television services to remote areas of Australia.Businesses and communication organisations are able to install earth stations of various sizes to suite their own purposes.

Taverner's Hill, Parramatta Road, Leichhardt, 1985. Although communication between Sydney and Parramatta was originally by way of the river, a road was soon built and in 1795 Mrs John Macarthur described it is 'a good road' and commented that she could undertake the return journey in one day. In 1811 Governor Macquarie proclaimed that in order to maintain the road, it was '....highly reasonable and equitable that all costs, charges, and expenses attending the same should be equally borne by those who daily participate in the numerous advantages and benefits resulting from the establishment and preservation of such public highways..... and that the road has been declared to be a turnpike road, and all persons riding, leading, or driving any horses, mares, gelding, cattle, sheep, swine, mules or asses on the said road, or using any carriage, gig, chaises, cart, or waggon on the said road, or through the turnpike gates now established...' would have to pay a toll. Most road tolls in N.S.W. were abolished in 1877 although in the 1980's some freeways have been declared as tollworks. In recent years, traffic volumes on Parramatta Road have almost reached saturation point, particularly at peak periods. There has been extensive commercial development along many stretches and the photograph shows local shopping traffic competing with through traffic.

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FURNITURE
ELECTRIC
The Classic FURNITURE
BUILDERS BARGAIN CENTRE
MENS LADIES
SALE NOW ON PARKING
ACI
NO RIGHT TURN
TAXI

INTERNAL TELECOMMUNICATIONS SERVICES

Australian Telecommunications Commission

The Australian Telecommunications Commission, which trades as "Telecom Australia", commenced operations in 1975, taking over the telecommunications functions of the former Postmaster-General's Department.

The main functions of the Australian Telecommunications Commission, as defined in the *Telecommunications Act 1975*, are to plan, establish, maintain, and operate telecommunications services within Australia. The Act also requires the Commission to pursue, as far as practicable, a financial policy to raise sufficient revenue to cover operating expenditure and to fund at least half of its capital expenditure.

The total full-time staff employed by the Commission in New South Wales and the Australian Capital Territory was 32,076 in June 1986 (31,950 in June 1985).

The following table shows particulars of telecommunications services in New South Wales and the Australian Capital Territory.

Telecommunications Services, N.S.W. *(a)*
(*Source*: Australian Telecommunications Commission)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Telephones at 30 June			
Telephone exchanges	1,803	1,790	1,778	1,756	1,733	1,750
Telephone services *(b)* —						
Sydney *(c)*	1,140,773	1,185,906	1,215,524	1,254,939	1,302,456	1,352,614
Rest of N.S.W. *(a)*	776,756	837,438	883,091	932,672	996,137	1,049,605
Total, N.S.W.	*1,917,529*	*2,023,344*	*2,098,615*	*2,187,611*	*2,298,593*	*2,402,219*
Number of services per 1,000 persons *(d)*	r351	r365	r375	r387	419.7	p433.3
Connections of new telephone services during year	191,516	189,191	181,810	192,364	215,845	230,887
Public telephones *(e)*	12,874	11,451	11,382	11,363	11,341	11,047
			Telex at 30 June			
Number of subscribers	12,500	13,784	14,252	15,341	16,412	17,110
			Telegrams during year ('000)			
Number —						
To places within Australia	1,938	1,653	1,599	1,478	1,304	1,153
To places outside Australia	672	591	301	212	199	173
Total telegrams	*2,610*	*2,244*	*1,800*	*1,690*	*1,503*	*1,326*
			Data transmission service at 30 June			
Number	18,955	24,116	29,420	34,867	38,959	42,420

(a) Includes Australian Capital Territory. *(b)* Represents the number of lines connected to exclusive (i.e. not duplex) telephone services plus the number of duplex service subscribers. Includes public telephones. *(c)* Telephone services connected to exchanges located within 40.2km of Sydney G.P.O. *(d)* Estimated resident population. *(e)* Included in "Telephone Services".

Telephone Service

Australia has an expanding network of high-capacity trunk systems which links all capital cities and provides direct subscriber to subscriber trunk dialling (STD) facilities between these cities and to most country centres. In 1985-86 97.6 per cent of the trunk calls originating in New South Wales and the Australian Capital Territory were dialled direct by subscribers. Since 1976, international subscriber dialling (ISD) facilities have been available, and their use has grown significantly with extension of the facilities and increases in the number of overseas destinations served. In 1985-86, 84.8 per cent of international calls originating in New South Wales and the Australian Capital Territory were dialled direct by subscribers.

Telex Service

At the end of June 1986, there were 46,423 subscribers in Australia (17,110 in New South Wales and the Australian Capital Territory) using the facility. The service utilises teleprinters instead of telephones and a subscriber can have direct contact with any other telex subscriber in Australia, or in most overseas countries.

Data Transmission Service

The Datel data transmission service provides for the high-speed transmission of large volumes of non-voice information using analogue links. Two digital data transmission services were introduced in late 1982 utilising the Digital Data Network (DDN). The Digital Data Service (DDS) which is designed for large teleprocessing applications, and AUSTPAC which is a packet switched data service, provide rapid, reliable digital data transmission facilities. In June 1986 in Australia there were 102,367 data modems (42,420 in New South Wales and the Australian Capital Territory), 22,753 DDS (8,649) and 2,104 AUSTPAC (775) services in operation. The large increase in the number of DDS and AUSTPAC services indicates the rapid growth in this area of communications.

Telefinder Service

In 1978-79 a regional telefinder service was introduced and the national telefinder service commenced operations early in 1981. This service enables users of paging equipment to be contacted in any radio paging area throughout Australia.

Mobile Telephone Service

The automatic Mobile Telephone Service was introduced in 1981 and now operates in all capital cities and some large regional centres.

Broadcasting

Telecom provides and operates transmitting stations and program link facilities associated with the Australian Broadcasting Commission's national sound broadcasting and television services. It also provides and operates television transmitting facilities for the Special Broadcasting Service. For more information on radio and television broadcasting, see Chapter 8 "Culture and Recreation".

Research, Development and Innovation Program

This program covers a broad range of projects aimed at improving telecommunication services. Apart from using its own resources, Telecom contracts development and research work to private industry, research bodies and universities.

Household Telephone Connection Survey

During March 1983, as part of the Population Survey Program of the Australian Bureau of Statistics, a survey was conducted throughout Australia to determine the number of households in private dwellings with a telephone connected. Reasons for not having a connection were also sought.

Of the estimated 1,799,400 private dwelling households in New South Wales, 1,537,000 (85.4 per cent) had a telephone connected. Of those without a connection, the main reason given for 142,300 (7.9 per cent) was cost, and for 56,100 (3.1 per cent) was a lack of need for the service.

National Communications Satellite System

AUSSAT Pty Ltd established the National Communications Satellite System which it owns and operates. The company which was incorporated in 1981, is jointly owned by the Commonwealth Government and the Australian Telecommunications Commission.

The satellite system came into operation during 1985. The first generation system comprises three satellites in geostationary orbit, a Satellite Control and Operations Centre in Sydney, another control station in Perth and eight Major Gateway Earth Stations to be located in each capital city. Public and private sector users may establish earth stations to access satellites on the same basis as AUSSAT.

The satellite system provides increased access to all forms of telecommunications and broadcasting, particularly in remote and underserviced areas, and enhances telecommunication services available to business, such as data transfer facilities. The system has also enabled the setting up of a comprehensive national communication network for the Department of Aviation. Other uses for the system include improving the reliability and capabilities of existing police and emergency services communication systems, by using transportable earth stations, and the extension of educational, community and health services to remote areas using radio and television.

OVERSEAS TELECOMMUNICATIONS SERVICES

The Overseas Telecommunications Commission (Australia), established by the *Overseas Telecommunications Act 1946*, is a Commonwealth statutory authority responsible for the establishment, maintenance, operation and development of all public telecommunications services between Australia and other countries, between Australia and its external territories and with ships at sea. It has a specific responsibility to make its services available at the lowest possible rates of charges. The Commission is responsible to the Commonwealth Parliament through the Minister for Communications.

Telephone, telex, television, facsimile, switched data, leased circuit, electronic mail and telegram services are provided to most countries throughout the world by means of submarine cables, communications satellites, and radio. The Commission also provides telecommunications services to and from shipping and international aircraft.

The Commission participates in the Commonwealth Telecommunications Organisation, the International Telecommunication Union, the International Telecommunications Satellite Organisation (INTELSAT) which has established a global communications satellite system, and International Maritime Satellite Organisation (INMARSAT) which provides a satellite system for communications with ships at sea and aircraft.

The Commission, whose head office is in Sydney, owns and operates many communication establishments in Australia, which in New South Wales includes two International Gateway terminals in Sydney, satellite earth stations at Oxford Falls, Sydney and Moree, and radio stations at Doonside, Bringelly and La Perouse. The TASMAN and ANZCAN submarine cables, which provide trans-Tasman and trans-Pacific services, come ashore at Bondi Beach. Further details concerning the operations of the Commission are published in the Australian Year Book.

RADIOCOMMUNICATION STATIONS

The following table contains a classification of the civil radiocommunication stations in New South Wales and Australia, authorised by the Minister administering the *Radio Communications Act 1983*. These figures exclude broadcasting and television stations, particulars of which are given in the Chapter 8, "Culture and Recreation".

Radiocommunication Stations *(a)* Authorised in N.S.W. and Australia *(b)*, 31 December 1986
(*Source*: Department of Communications)

Type of station	*N.S.W.*	*Australia*
Aeronautical base	152	551
Aircraft	466	2,627
Amateur	5,344	16,751
Base station	8,659	31,931
Citizen band	50,829	205,823
Coast	5	29
Frequency reservation certificate	199	842
Disaster	761	3,525
Earth space stations	17	166
Experimental	303	1,009
Exterior paging	77	301
Fixed stations —		
Outpost	286	1,968
Major	271	919
Other	3,760	10,411
General	433	511
Handphone	4,042	13,709
Interior paging	472	1,290
Land mobile paging	574	3,243
Limited coast	406	1,713
Marine rescue	120	633
Mobile	70,080	250,439
Mobile outpost	956	11,988
Radiodetermination	204	625
Remote control	1,226	5,346
Repeater	92	351
Satellite	—	3
Ship	13,032	53,728
Other	92	294
Total stations	**162,858**	**620,726**

(a) Excludes stations operated by the defence forces. *(b)* Includes internal and external territories.

Under the Act, civil radiocommunication operators are required to be licensed. From 1981-82 the "user-pays" principle has been used to ensure that the full cost of managing the radio spectrum is met by users. Radiocommunications licence fees and charges paid throughout Australia in 1984-85 totalled $27m.

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Household Telephone Connections, Australia* (Catalogue No. 4110.0); *Imports of Assembled New Passenger Motor Cars, Australia* (5416.0); *Survey of Motor Vehicle Usage, Australia* (9208.0); *Shipping and Cargo, Australia* (9211.0); *Rail Transport, Australia* (9213.0); *Motor Vehicle Registrations, Australia (Monthly)* (9303.0); *Motor Vehicle Registrations, Australia (Annual)* (9304.0); *Road Traffic Accidents Involving Fatalities, Australia* (9401.0); *Road Traffic Accidents Involving Casualties (Admissions to Hospitals), Australia* (9405.0).

A.B.S. Publications (N.S.W. Office): *Pocket Year Book of New South Wales* (Catalogue No. 1302.1); *Monthly Summary of Statistics, New South Wales* (1305.1); *Household Telephone Connections, New South Wales* (4110.1); *Motor Vehicle Census, New South Wales* (9309.1).

Other Publications: Annual Report and *Port Statistics* of the Maritime Services Board, Annual Report and *Australian Shipping* of the Department of Transport, and Annual Reports of the Australian Shipping Commission, the Australian National Railways Commission, State Rail Authority, Urban Transit Authority, the Commissioner for Main Roads, the Department of Motor Transport, Traffic Authority New South Wales, Australian Postal Commission, Australian Telecommunications Commission, Overseas Telecommunications Commission, Department of Communications, Australian National Airlines Commission, QANTAS and Department of Aviation. Department of Aviation's publications: *International Air Transport, Domestic Air Transport,* and *Australian Air Distances.*

15

HOUSING AND CONSTRUCTION

HOUSING OF THE POPULATION

CENSUS OF DWELLINGS

Information concerning the housing of the population of New South Wales is obtained from householders' schedules collected during the censuses of population and housing now conducted every five years.

Number of Private Dwellings in Areas of N.S.W., by Type of Dwelling, at 30 June 1981

Type of Private Dwelling	*Sydney Statistical Division*	*Hunter Statistical Division*		*Illawarra Statistical Division*		*Rest of N.S.W.*	*Total N.S.W.*
		Newcastle Statistical District	*Balance*	*Wollongong Statistical District*	*Balance*		
Separate house	721,845	110,233	18,202	56,515	21,313	307,393	1,235,501
Semi-detached house	34,178	1,740	176	667	140	4,463	41,364
Row, terrace house	26,297	1,029	107	380	29	1,382	29,224
Other medium density	206,620	9,052	1,476	9,970	1,157	28,254	256,529
Flats (more than 3 storeys)	45,389	372	76	525	4	655	47,021
Caravan, houseboat	1,571	634	289	140	171	3,823	6,628
Other	10,555	1,184	446	629	300	6,148	19,262
Not stated	18,624	1,998	367	908	297	5,035	27,229
Total private dwellings	**1,065,079**	**126,242**	**21,139**	**69,734**	**23,411**	**357,153**	**1,662,758**

RENTS AND RENT CONTROL

On 1st October 1986 the first stage of landlord and tenant law reform commenced with the introduction of the Residential Tenancies Tribunal Act 1986 which established a Tribunal to deal with claims of excessive rents or rent increases.

The Department of Consumer Affairs established the Tenancy Service to disseminate information, provide advice on the operation of the Act and liaise with industry and community groups.

The Residential Tenancies Act 1987 which is expected to commence operation in late 1987, broadens the jurisdiction of the Tribunal to deal with residential landlord and tenant disputes. However, the Act will not deal with termination of protected tenancies under the Landlord and Tenant (Amendment) Act 1948. The application of rent control under the Landlord and Tenant (Amendment) Act 1948 is described on pages 287 and 288 of Year Book No. 70.

The new Act establishes rights and obligations for both landlords and tenants and provides for a standard residential tenancy agreement. The Residential Tenancies Tribunal will introduce procedural reforms for the enforcement of those rights and obligations.

Rental Bond Board

The Rental Bond Board is a New South Wales Government Authority which was established under the Landlord and Tenant (Rental Bonds) Act 1977 to act as a custodian of tenants' rental bonds.

Previously a part of the Department of Consumer Affairs, its administration was transferred to the Housing Minister in 1986.

Manuscript of this section prepared in August 1987.

The Act requires all rental bonds on residential tenancies to be deposited with the Board within seven days of receipt, and sets maximum amounts that landlords may demand as a bond. The Act also makes provision for refunds to tenants and landlords and the determination of payment in the event of a dispute.

Rental bonds held by the Board are invested in Government housing programs, Government securities and bank bills, and other interest bearing deposits.

After deducting the costs of operating the Board, income from investments is used to provide a free Rental Advisory Service for tenants and landlords, funding for rental accommodation for those in need and to provide loans to low income earners for new project housing approved by the Board.

Rental Bond Statistics

	1985		*1986*	
Year ended 30 June	*No.*	*Value ($)*	*No.*	*Value ($)*
Bonds deposited	188,248	72,502,753	185,961	79,050,044
Bonds refunded	181,844	63,554,540	182,230	68,212,166
Net increase for period	6,404	8,948,213	3,731	11,237,878
Bonds held at 30 June	296,640	101,887,846	300,371	113,125,724

COMMONWEALTH-STATE HOUSING AGREEMENTS AND ARRANGEMENTS

The Commonwealth Government makes substantial grants to the State for the construction of homes and for other housing purposes under the current Commonwealth-State Housing Agreement. There have been several Agreements since 1945. Details of the Housing Agreements 1945-46 to 1970-71, the Housing Arrangements 1971-72 and 1972-73, the Housing Agreement 1973-74, and the 1978 and 1981 Agreement, are given in Year Books 62, 64, 68 and 70 respectively.

THE 1984 AGREEMENT

The current Housing Agreement, introduced by the *Housing Assistance Act 1984*, replaces the 1981 Agreement and will operate for ten years (1984-85 to 1993-94) with provision for review at least every three years.

In its first year, the 1984 Agreement provided base funding of $530m to the States and the Northern Territory, with a guaranteed minimum of $510m for each of the following two years. Thereafter, funding will be determined by the Commonwealth on an annual basis.

The 1984 Agreement set out principles to guide the development of public housing over the next decade, its twin objectives being to alleviate housing-related poverty and to ensure that housing assistance is, as far as possible, delivered equitably to persons resident in different forms of housing. The objectives have been endorsed by all State housing ministers. Details of the 1984 Agreement are given on page 290 of Year Book No. 70.

The payments made to New South Wales by the Commonwealth Government in the years 1980-81 to 1985-86 under the Commonwealth-State Housing Agreements are summarised in the following table.

Commonwealth-State Housing Agreements: Commonwealth Government Payments *(a)* to N.S.W. ($'000)

Year ended 30 June	*Building societies etc. (b)*	*Pensioner housing*	*Aboriginal housing*	*Mortgage and rent relief*	*Emergency accommodation housing*	*Local community housing (c)*	*Other housing assistance (d)*	*Total capital payments*
1981	21,860	12,421	6,300	—	—	—	49,860	90,441
1982	13,639	12,430	9,087	—	—	—	47,395	82,551
1983	13,804	12,171	9,088	7,030	—	—	69,034	111,127
1984	13,941	11,897	12,345	6,980	—	—	119,207	164,370
1985	16,734	13,376	12,345	7,658	4,443	2,475	143,727	200,758
1986	17,704	13,913	12,771	8,020	4,651	3,533	152,035	212,627

(a) Includes grants and advances. Since 1984-85, all assistance has been provided in the form of grants. *(b)* Advances to individuals for erection or purchase of homes and for other approved purposes associated with homes. *(c)* Purchase, erection, leasing or upgrading of dwellings for low-cost rental housing managed by local government, community or welfare organisations. *(d)* Erection or purchase of dwellings for rental or sale.

OTHER COMMONWEALTH HOUSING ASSISTANCE

The Commonwealth Government also provides assistance to home buyers under various schemes. These include the Home Deposit Assistance Scheme, First Home Owners Scheme, Defence Service Homes and Housing Loans Insurance. These and other forms of Commonwealth Government housing assistance are described in pages 405 to 412 of Year Book Australia No. 69.

DEPARTMENT OF HOUSING, NEW SOUTH WALES

The Housing Act 1985 came into effect on 1 January 1986 enabling the formation of the Department of Housing and thereby creating a housing administration which is more relevant, efficient and responsive to Government policy and the people of New South Wales.

It brings together the former Housing Commission and Land Commission, as well as housing-related functions of the Department of Consumer Affairs, including the Rental Bond Board and Mortgage Relief Scheme.

The Department also assumed responsibility for the housing-related areas of the former Department of Cooperative Societies. These included the administration of the Home Purchase Assistance Account, now known as the Home Ownership Programme, and operation of the Home Purchase Advisory Service, now renamed the Housing Advisory Service.

The new structure will:

- streamline the administrative process,
- improve the co-ordination of all the different agencies involved, thereby giving housing consumers a better choice of housing assistance,
- allow the Minister greater scrutiny over housing policy and give housing consumers a greater say in the development of housing policy,
- ensure more consistent policy across the portfolio, and
- improve the State government's capacity to respond to, and propose initiatives to the Federal government.

The Department will have three main program functions:

- managing the public housing stock of New South Wales,
- land and housing development for addition to the public stock and private sale, and,
- structuring and stimulation of financial assistance for purchasers and tenants.

These complementary policies aim to:

- maintain an adequate supply of moderately priced land to meet demand,
- increase the supply of cheaper finance available to home buyers,
- assist low and moderate income earners into home purchase,
- provide security and affordability for tenants,
- assist rental investors, and
- create greater stability in the development of the building industry.

Particulars of house and flat dwelling units (including units for singles/couples/pensioners) completed for the Department in the six years to June 1986 are:

	Year ended 30 June					
	1981	*1982*	*1983*	*1984*	*1985*	*1986*
Number of houses and flats completed	3,399	2,405	2,090	3,115	3,223	4,688

The 4,688 dwellings completed in 1985-86 comprised 3,163 for general housing, 1,127 for singles/couples/pensioners, 369 for aboriginals and 29 for other government departments and authorities.

In addition to carrying out its own programs the Department is responsible for overseeing the development and disposal of Crown land homesites in Sydney and the Hunter regions. Major releases of Crown land homesites have occurred in the local government areas of Hawkesbury, Hornsby, Penrith and Sutherland. During 1985-86, 787 Crown land lots were sold.

LANDCOM — DEPARTMENT OF HOUSING

Although the Land Commission of New South Wales ceased operations on 31 December 1985, the name Landcom was retained as a trading name for marketing purposes. The Department of Housing will continue to acquire land, develop it and make it available to home builders at the lowest practicable price. Homesites will continue to be developed by the Department on Crown land.

The Department's activities for the year ended 30 June 1986 included:

- Introduction of the *Easy Access Scheme*. This State government scheme provides an initial subsidy to each new home owner and, under an arrangement with St. George Building Society, reduces the cost of borrowing.
- Opening of *Home Advisory Centres* in Sydney, Parramatta and Newcastle. These centres combine Landcom marketing promotion with the Government Home Purchase Advisory Service. Advice on all aspects of buying a new or established home is now offered.
- Design and construction of 5 neighbourhood community centres on Landcom estates.
- The sale (exchange) of 1,636 lots (including 787 for Crown land) despite the poor market conditions.
- Development (registration) of 726 building lots during the year.
- Acquisition of 649 hectares of undeveloped land, with an expected yield of 4,512 lots, at a total cost of $22.1 million. This represents an increase in land acquisition commitments (settlements) over the previous year of 52.5 per cent.

Landcom had operated under the Land Commission Act 1976. It now operates under the Housing Act 1985, the objectives of which include "to promote orderly and economic development and the adequate supply of affordable and suitably located land for housing at the minimal practicable cost to consumers' and "to encourage the planning and development of new urban areas as communities with a full range of appropriate services and facilities available in the shortest practicable time".

HOME OWNERSHIP PROGRAMME

Through the Home Ownership Programme, the Department has introduced a package of four housing assistance schemes for low to medium income earners, the aged and the disabled. Brief descriptions of the schemes are given below.

Premier Low Start Home Loans Scheme

This scheme provides assistance to moderate income earners to obtain low-start fixed interest loans for a new or existing home. Loans up to $60,000 will be available to borrowers with household incomes of less then $31,000 per annum. Repayments start at 27 per cent of income and increase by 6 per cent per annum until the loan is paid off.

The Affordable Home Loans Scheme

Assistance is provided for people on income not exceeding $17,680 per annum (single) and $21,840 per annum (combined). The interest rate is 12 per cent (currently) and loan repayments are geared to income. There is a waiting time for a loan of 18 months to 3 years.

The Mortgage Relief Scheme

This scheme provides short-term financial assistance to persons who are in serious financial difficulties in repayment of a loan mortgage. Mortgage relief is an avenue of last resort and assistance will only be provided if mortgagors have exhausted all other avenues of assistance. During the six months ended 30 June 1986, 90 applications per month were received in respect of this scheme.

Home and Community Care Scheme

This scheme is designed to provide home maintenance and modification service to the aged and disabled people having difficulty in maintaining their homes who would otherwise be leaving their homes to enter residential care.

OTHER STATE GOVERNMENT HOME PURCHASE ASSISTANCE

State Bank of New South Wales

The State Bank of New South Wales, by arrangement with the New South Wales Government, administers funds provided in respect of agency schemes under which finance is made available to individuals for erection or purchase of homes and for other approved purposes associated with homes.

Prior to 1976 the Sale of Homes Agency undertook to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales and houses sold on terms under the 1956 and subsequent Commonwealth-State Housing Agreements and Arrangements. The Agency has continued to administer the purchase accounts. For further details on this responsibility of the Bank see pages 355 and 356 of Year Book No. 66.

The Housing Society Agency administers advances made to co-operative housing societies and to the State Bank (as the approved government lending institution of the State) from funds allocated to the State under Commonwealth-State Housing Agreements and Arrangements. Borrowers pay interest on the advances made prior to 1 July 1985 at rates ranging from 5 per cent per annum to rates which increase annually until they are 1 per cent per annum below the then current Commonwealth Savings Bank rate for housing loans. Changes brought about by the Housing Assistance Act 1984 require borrowers to pay interest at the rate of 11.25 per cent per annum on advances made from 1 July 1985, but for low income earners a rebate of interest is allowed. Repayments by borrowers range from 20 to 30 per cent of income.

Particulars of advances by the Agency during the last six years appear below.

Housing Society Agency, Advances Received, Repaid and Outstanding

Year ended 30 June	*Advances during year $'000*	*Total advances to end of year $'000*	*Principal repaid during year $'000*	*Advances outstanding at end of year $'000*
1981	52,640	668,325	34,733	373,918
1982	50,615	718,940	27,702	396,865
1983	37,565	756,505	27,976	406,500
1984	78,265	834,770	40,487	444,423
1985	63,027	897,797	45,781	461,710
1986	72,146	969,943	40,316	490,794

Stamp Duty Deferred Payment Scheme

In 1976 the State Government introduced a scheme by which first home buyers may be eligible for a deferment of the amount of stamp duty payable on their first home. The Stamp Duties Office determines, on behalf of the Treasury, the eligibility of applicants and properties, and (if acceptable) approves of an advance being made for payment of stamp duty in accordance with the Scheme. Applicants repay the advance to the State Bank over a period of five years by equal annual instalments. The advances are free of interest provided instalments are paid by the due date. To 30 June 1986, 160,860 applicants have taken advantage of the Deferred Payment Scheme to the extent of $131.9m. Balances outstanding as at 30 June 1986 totalled $64.9m in respect of 94,698 accounts.

State Second Mortgage Loan Scheme

On 1 July 1981 the New South Wales Government introduced the State Second Mortgage Loan Scheme to provide second mortgages to assist eligible low to moderate income earning families acquire their home. The interest rate charged is 12 per cent per annum or the notional rate payable on the first mortgage, whichever is the higher, and remains fixed for the term of the loan. The maximum loan is $15,000 and loans are repayable over 10 years. The Scheme is financed from funds made available by various Government instrumentalities and is administered by the State Bank of New South Wales. From the inception of the Scheme to 30 June 1986, 7,294 loans for $69.2m were approved.

State First Mortgage Scheme

In October 1982 the New South Wales Government introduced the State First Mortgage Loan Scheme to provide finance to assist eligible, moderate income earning families to purchase homes on land developed by the Land Commission of New South Wales, Shire Councils, etc. Loans to a maximum of $50,000 were available, repayable over 20 years at concessional rates of interest. In the early years, the scheme was financed from the same sources as the State Second Mortgage Loan Scheme and is also administered by the State Bank of New South Wales. Commercial lending institutions have gradually adopted similar housing schemes, and during 1985 new lending under this Scheme was phased out. During the currency of the scheme, 1,054 loans for $49.7m were approved.

FINANCE FOR HOME PURCHASE

Finance for the building or purchase of homes in New South Wales is provided from a number of private sources and from agencies owned or guaranteed by the State or Commonwealth Governments. Details of interest rates charged by banks and building societies in New South Wales in recent years are given in the chapter "Private Finance".

The private sources of housing funds include life insurance offices, private trading and savings banks, co-operative building societies, superannuation and other trust funds, private finance and investment companies. Complete statistics of the extent of lending from all these sources are not available. However, statistics are compiled of finance approved, by significant lenders, to individuals for the construction or purchase of dwellings for owner-occupation. A significant lender is one whose *Loans Approved* in this category exceeded $250,000 in a financial year on an Australia-wide basis, or whose *Balances Outstanding* on such loans at the end of that year exceeded $2 million. The value of housing loans approved by significant lenders to individuals since 1980-81 is shown in the following table.

Value of Loans Approved in N.S.W. to Individuals for Housing ($'000)

Year ended 30 June	*Loans approved for the construction or purchase of dwellings*					Loans approved for alterations and additions	Total loans approved to individuals for housing
	Construction of dwellings	Purchase of newly erected dwellings	Purchase of established dwellings	Total dwellings: Houses	Total dwellings: Other residential buildings		
1981	426,577	309,014	2,085,240	2,450,130	370,701	218,867	3,039,698
1982	334,145	261,296	1,611,743	1,940,778	266,406	225,464	2,432,648
1983	334,969	205,665	1,859,672	2,134,982	265,324	206,850	2,607,156
1984	553,670	229,263	2,749,192	3,160,676	371,449	251,559	3,783,684
1985	642,868	208,604	3,391,619	3,749,290	493,801	226,272	4,469,363
1986	576,764	196,303	3,163,262	3,454,109	482,220	182,360	4,118,689

The average value of loans approved for the construction or purchase of dwellings for owner occupation in New South Wales in June of recent years is shown below.

	June 1981 $	*June 1982* $	*June 1983* $	*June 1984* $	*June 1985* $	*June 1986* $
Houses	32,628	34,817	35,845	40,835	43,502	45,084
Other residential buildings	35,638	36,460	36,900	43,240	44,589	45,281
Total average value	32,946	34,991	35,950	41,038	43,623	45,107

Value of Loans Approved in N.S.W. to Individuals for the Construction or Purchase of Dwellings, by Type of Lender ($'000)

Year ended 30 June	*Savings banks*	*Trading banks*	*Building societies*		*Finance companies*	*Other (b)*	*Total*
			Permanent (a)	*Terminating*			
1981	834,898	403,739	985,550	103,753	313,131	179,760	2,820,831
1982	707,126	335,065	707,170	90,532	184,485	182,806	2,207,184
1983	1,046,824	271,888	699,069	102,500	109,791	170,234	2,400,306
1984	1,487,455	305,587	1,253,454	142,746	145,722	197,161	3,532,125
1985	1,966,396	466,776	1,449,407	151,222	100,091	109,199	4,243,091
1986	1,773,855	669,028	1,139,514	152,447	86,080	115,405	3,936,329

(a) Includes non-terminating building societies. *(b)* Comprises governmental authorities, insurance companies, and credit unions.

SUPERVISION OF CONSTRUCTION

Municipal and shire councils in New South Wales are empowered, in terms of the Local Government Act 1919, to supervise and regulate building construction within their area. The relevant provisions of the Act apply in all municipalities, to the whole of a large number of shires, and to the larger residential areas within other shires.

The principal powers and functions of the councils are defined in broad terms in the Act itself, while ordinances under the Act prescribe in detail the minimum building standards to be observed. Pursuant to the Local Government Act 1919 and the Environmental Planning and Assessment Act 1979 appeals against decisions of councils concerning building or development applications are made to the Land and Environment Court constituted under the Land and Environment Court Act 1979. This Court commenced its operations in 1980, replacing the former Local Government Appeals Tribunal. The Court is of Supreme Court status and matters are heard by a Judge and/or technical and conciliation assessors.

Within the areas subject to building control by local authorities, detailed plans and specifications for a proposed building, or for alterations or additions to an existing building, must be submitted for the council's approval before building operations are commenced. The council carries out inspections at various stages of the construction.

Under the Height of Buildings Act 1912 a building may not be erected in New South Wales to a height greater than 25 metres unless the Minister for Planning and Environment has concurred with the development application, nor to a height greater than 45 metres unless the Minister has concurred with the development application on the recommendation of the Height of Buildings Advisory Committee.

Land use planning and urban and regional development in New South Wales are described in Chapter 11 "Land Use".

BUILDING SERVICES CORPORATION

The Building Services Corporation, formed by the merger of the Builders Licensing Board and the Plumbers, Gasfitters and Drainers Board, commenced operation on 1 July 1987.

The Corporation provides consumer protection, advice to the public on home building and trade contract transactions, and helps settle disputes between builders and consumers.

The Corporation is responsible for the licensing of all building tradespeople, with the exception of electricians.

Complaints against licence holders may be made to the Corporation. The Corporation can order the rectification of defective works and it can cancel or suspend a licence and impose fines.

Builders are required to pay an insurance premium to the Corporation which covers the home owner against any loss incurred as a result of the insolvency of the builder or any major structural defects in the work done by the builder. The maximum payment in respect of any one claim is $40,000.

A person who wishes to build his own home, or to carry out alterations or additions to his own home where the value of the work exceeds $1,000, must apply for an owner-builder's permit from the Corporation.

ARCHITECTS

The practice of architecture in New South Wales is regulated by the Board of Architects of New South Wales, established under the Architects Act 1921. Persons taking and using the name "architect" or "chartered architect" (the latter requiring a higher level of qualification) are required to be registered. Registration is granted to persons over 21 years of age who possess the requisite qualifications. There were 3,077 architects on the register at 31 December 1986.

BUILDING STATISTICS

SOURCES OF BUILDING STATISTICS

Statistics of building approved in New South Wales are compiled from returns of:

- *(a)* permits issued by local government authorities in areas subject to building control by those authorities; and
- *(b)* contracts let or day labour jobs authorised by Commonwealth, State, local and semi-governmental authorities.

Statistics of building activity are compiled from returns completed by:

- *(a)* builders involved in contract and/or speculative building activity;
- *(b)* individuals and businesses involved in building activity on their own account; and
- *(c)* Commonwealth, State, local and semi-governmental authorities.

SCOPE AND COVERAGE OF BUILDING STATISTICS

The statistics relate to building structures, and exclude railways, roads, bridges, earthworks, water storage, and other similar types of construction. Certain details on construction activities are included in the division "Construction (other than Building)" later in this chapter. Repairs and maintenance are excluded because of the difficulty of obtaining satisfactory information.

The statistics of government building cover the whole of New South Wales. The statistics of private building cover that part of the State subject to building control by local government authorities. In addition, major private building activity which takes place in areas not subject to the normal administrative approval processes is included. The values of building jobs approved, commenced, completed, and under construction include:

- *(a)* new residential buildings;
- *(b)* alterations and additions (to existing residential buildings) with an estimated value (when completed) of $10,000 or more; and
- *(c)* non-residential building jobs (whether new buildings or alterations and additions to existing buildings) with an estimated value (when completed) of $30,000 or more.

REVISED SYSTEM FOR COLLECTING AND COMPILING BUILDING STATISTICS

From July 1980 a new system of collecting and processing building statistics has been implemented. Conceptually, there is very little difference between the old and the new system. The principal changes to the previous systems are as follows:

(a) the introduction of a monthly new dwelling commencements series (based on information supplied by local and semi-government authorities and government departments) which provides statistics at local government area level; and

(b) replacement of the quarterly census of private sector house building jobs by a quarterly sample survey which provides data on private sector house building activity at the State level.

The quarterly census of building jobs other than private sector house jobs continues as before. Further details of the new system are given in the Explanatory Notes to *Building Activity, New South Wales* (Catalogue No. 8752.1).

CLASSIFICATION OF BUILDING ACTIVITY

In these statistics a building job is classified as *private sector* or *public sector* according to expected ownership at time of approval. *Public sector* building includes all building for Commonwealth, State, local, and semi-government authorities. Building for private ownership for which finance is provided by governmental authorities is classified as *private sector.*

Building jobs are classified according to the function which they are intended to serve on completion. On multi-function jobs, each detached building or group of related buildings will be classified to its intended primary function, regardless of the function of other buildings located on the same site. Examples of the types of building job included in each main class of building are given in the following list:

Shops: includes restaurants, retail markets, shopping centres, and showrooms.

Offices: includes banks, post offices, and council chambers.

Factories: includes abattoirs, brickworks, power houses, printing offices, and government workshops.

Educational: includes schools, colleges, kindergartens, reference libraries, and universities.

Other: includes hotels, hostels, service stations, wholesale stores and warehouses, telephone exchanges, religious institutions, buildings for entertainment and recreation, hospitals and convalescent homes, homes for aged, law courts, defence buildings, police stations, and reformatories.

New dwellings are classified as either "houses" or "other residential buildings". A "house" is defined as a detached building predominantly used for long-term residential purposes and consisting of only one self-contained dwelling unit. "Self-contained" means that the suite of rooms must possess cooking and bathing facilities as building fixtures. The classification "other residential buildings" includes flats (including home units) and semi-detached cottages, villa units, town houses, and similar types of dwelling units.

DEFINITIONS USED

The *value of building jobs approved, commenced, or under construction* represents the estimated value of the whole job when completed, excluding the value of the land (and landscaping) on which the job is carried out. The *value of building jobs completed* represents the actual value of the whole job when completed, excluding the value of the land (and landscaping) on which the job has been carried out. The *value of building work done* during a period represents the estimated value of the building work actually carried out during the period on jobs which are regarded as having commenced.

Value of building jobs approved is — for private sector building, the value of building permits granted by local government authorities; and for public sector building, the value of contracts let and day labour jobs authorised by governmental authorities.

The *number of new houses and other residential buildings approved* is — for private sector building, the number of individual dwelling units covered by building permits granted by local authorities; and for public sector building, the number of individual dwelling units covered by contracts let or day labour jobs authorised by governmental authorities. The *number of new houses and other residential buildings commenced* is the number of actual commencements recorded during the year.

For the statistics contained in this chapter, a building job is regarded as having been *commenced* when building work is first reported. A building job is regarded as being *under construction* at the end of a period if it has not been completed and work on it has not been abandoned.

The numbers of new houses and other residential buildings are recorded in terms of separate *dwelling units*. Each flat in a group of flats (and each "home unit" in a group of "home units") is counted as a separate dwelling unit. Temporary or make-shift residential buildings (such as garages, sheds, etc.) are excluded from the scope of building statistics. The dwelling units that result from *conversion* of existing buildings into flats are not included in the number of *new* other residential buildings. However, the value of flat conversions is included in the value of alterations and additions to residential buildings.

GEOGRAPHICAL AREAS

For the purpose of presenting the principal series of official statistics of the State, New South Wales is divided into a number of geographical areas. These areas are described in the division "Geography" in Chapter 1 "Natural Environment" and their boundaries are shown in the map at the end of this volume.

VALUE OF BUILDING JOBS

Trends in the building industry are illustrated in the following table, which shows, by class of building, the value of building jobs approved, commenced, under construction, and completed in New South Wales in each of the last six years.

Value of Building Jobs by Class of Building and Stage of Construction, N.S.W. ($m)

Year ended 30 June	*New residential buildings*		*Alterations and additions to residential buildings (a)*	*Non-residential building*					*Total building*
	Houses	*Other*		*Shops*	*Factories*	*Offices*	*Educational*	*Other*	
				Approved *(b)*					
1981	1,603.9	527.4	301.4	141.3	346.2	155.6	147.4	476.6	3,699.8
1982	1,296.2	613.8	335.0	223.5	288.0	197.0	109.4	368.8	3,431.7
1983	1,091.9	361.6	306.2	158.9	225.0	438.8	112.5	520.4	3,215.3
1984	1,487.2	371.3	348.8	283.8	164.0	337.0	218.7	427.6	3,638.4
1985	1,628.0	491.6	389.6	328.3	226.7	636.4	184.8	582.5	4,468.0
1986	1,577.4	471.7	434.9	371.2	315.8	908.9	267.5	920.2	5,267.7
				Commenced *(c)*					
1981	1,657.3	623.6	333.0	206.5	401.5	201.0	182.7	597.2	4,202.8
1982	1,340.3	653.0	348.7	233.5	336.9	230.0	115.8	326.4	3,584.6
1983	1,026.0	341.1	324.4	192.7	223.9	319.3	114.7	506.8	3,049.9
1984	1,377.7	360.2	308.1	286.1	224.4	688.7	206.7	455.6	3,907.5
1985	1,599.4	465.2	378.2	300.5	230.6	693.0	190.6	513.1	4,370.6
1986	1,543.5	473.5	421.5	431.8	312.8	961.4	263.1	1,002.4	5,410.0
				Under construction at end of period *(c)*					
1981	865.1	536.3	173.6	207.2	325.0	280.8	187.4	668.0	3,243.3
1982	666.8	568.4	164.3	195.3	380.6	348.5	161.7	491.9	2,977.5
1983	551.8	409.1	177.9	148.6	319.2	391.4	144.0	495.7	2,637.6
1984	726.0	438.7	155.9	195.4	343.6	834.9	223.8	571.2	3,489.5
1985	903.2	524.9	182.1	220.5	225.7	1,096.3	256.3	642.8	4,051.8
1986	839.1	503.7	221.0	424.0	232.0	1,388.7	341.4	977.7	4,927.6
				Completed *(c)*					
1981	1,460.2	427.2	257.7	172.0	237.7	171.9	133.7	400.5	3,261.9
1982	1,525.1	611.6	350.1	252.6	296.6	188.9	143.4	499.5	3,867.8
1983	1,133.0	542.6	305.5	243.6	320.5	281.9	136.9	565.4	3,529.4
1984	1,199.8	343.8	308.2	259.1	208.7	287.1	128.6	409.3	3,144.6
1985	1,413.1	424.1	347.8	306.5	352.3	463.9	175.5	487.9	3,971.1
1986	1,599.6	502.1	407.0	249.2	329.7	719.0	178.8	737.9	4,723.3

(a) Valued at $10,000 or more. Includes conversion of existing buildings into dwellings. *(b)* Includes approved new residential buildings irrespective of value and all other building projects valued at $10,000 or more. *(c)* From September quarter 1985, the scope of building activity statistics in respect of non-residential building was changed by raising the minimum value from $10,000 to $30,000 for jobs commenced, under construction or completed.

The relationship between the value of building jobs approved and the value of building jobs commenced in the year is influenced partly by normal delays in the commencement of building operations, partly by the fact that some intending builders find it impracticable to proceed with their plans, and partly by increases in the estimated value of building jobs in the period between approval and commencement.

Following a peak of $4,202.8m in 1980-81, the value of building jobs commenced fell to a low of $3,049.0m in 1982-83, then recovered to $5,410.0m in 1985-86.

A geographical distribution of the value of building jobs approved in New South Wales during the last three years is shown in the following table.

Value of Building Jobs Approved in Statistical Divisions, by Class of Building, N.S.W. ($m)

Statistical Division	*New residential buildings*		*Alterations and additions to residential buildings (a)*	*Non-residential building (b)*					*Total building*
	Houses	*Other*		*Shops*	*Factories*	*Offices*	*Educational*	*Other*	
				1983-84					
Sydney	751.3	242.3	272.4	181.3	126.6	300.8	120.3	253.3	2,248.2
Hunter	176.1	38.8	24.0	29.1	5.9	9.3	32.7	58.6	374.5
Illawarra	124.7	23.2	14.6	19.7	3.4	3.6	17.4	15.0	221.6
Richmond-Tweed	67.2	10.4	3.9	10.5	2.5	2.6	7.8	14.4	119.2
Mid-North Coast	114.2	21.6	8.0	10.0	7.4	7.6	9.5	15.9	194.2
Northern	40.6	3.7	5.6	2.6	1.5	2.4	3.6	9.7	69.7
North Western	28.9	2.0	1.8	3.1	1.3	1.9	1.6	7.4	48.1
Central West	38.6	4.0	5.2	15.5	6.1	1.4	12.8	12.2	95.7
South Eastern	78.9	14.9	7.2	8.0	2.1	1.8	0.8	14.6	128.3
Murrumbidgee	33.4	5.3	3.5	2.5	1.7	3.3	8.1	11.1	68.9
Murray	31.7	4.8	2.3	1.2	5.4	1.9	2.2	14.5	64.1
Far West	1.7	0.4	0.3	0.4	0.1	0.5	2.0	0.8	6.1
Total, N.S.W.	**1,487.2**	**371.3**	**348.8**	**283.8**	**164.0**	**337.0**	**218.7**	**427.6**	**3,638.4**
				1984-85					
Sydney	828.4	359.0	303.4	185.4	172.1	556.9	131.5	347.6	2,884.3
Hunter	171.5	29.2	23.4	33.3	12.3	17.5	12.3	82.5	382.0
Illawarra	127.9	26.4	17.9	38.2	13.1	22.4	4.6	30.2	280.7
Richmond-Tweed	70.8	12.7	5.4	15.2	3.7	5.0	5.1	14.4	132.3
Mid-North Coast	119.2	15.9	8.6	16.9	4.9	4.6	8.3	14.1	192.5
Northern	49.5	2.2	5.9	4.9	3.8	8.0	3.0	12.9	90.2
North Western	36.5	5.0	2.4	4.0	3.0	1.4	3.0	11.7	67.0
Central West	42.3	6.2	5.9	7.9	2.4	3.4	3.3	11.7	83.1
South Eastern	94.1	19.8	8.7	8.1	3.7	11.2	7.2	24.5	177.3
Murrumbidgee	40.9	4.5	4.5	3.9	1.3	2.0	2.5	15.1	74.7
Murray	44.8	10.4	3.1	10.4	5.2	3.6	0.4	15.3	93.2
Far West	2.1	0.3	0.4	0.1	1.2	0.4	3.6	2.6	10.7
Total, N.S.W.	**1,628.0**	**491.6**	**389.6**	**328.3**	**226.7**	**636.4**	**184.8**	**582.6**	**4,468.0**
				1985-86					
Sydney	829.4	349.4	341.2	260.7	244.5	812.6	184.8	696.8	3,719.4
Hunter	155.4	31.0	24.7	28.2	22.9	22.3	9.1	41.8	335.4
Illawarra	127.2	24.2	18.5	11.0	16.9	34.5	15.8	37.1	285.2
Richmond-Tweed	70.3	8.6	6.2	6.1	3.8	2.2	9.5	15.5	122.2
Mid-North Coast	107.5	11.9	8.4	28.0	4.7	5.8	20.4	24.6	211.3
Northern	45.4	6.3	7.3	3.7	1.8	5.5	6.3	15.9	92.2
North Western	31.5	4.0	2.6	4.0	1.7	7.6	0.8	7.3	59.5
Central West	39.7	5.1	6.4	11.2	5.9	3.7	11.8	14.3	98.1
South Eastern	97.6	17.7	10.2	6.8	5.5	4.1	4.1	31.6	177.6
Murrumbidgee	30.5	4.7	4.8	4.1	1.7	4.2	2.4	12.3	64.7
Murray	41.0	8.8	4.2	4.3	6.2	6.1	2.3	22.8	95.7
Far West	1.9	—	0.4	3.1	0.2	0.3	0.2	0.3	6.4
Total, N.S.W.	**1,577.4**	**471.7**	**434.9**	**371.2**	**315.8**	**908.9**	**267.5**	**920.3**	**5,267.7**

(a) Valued at $10,000 or more. Includes conversion of existing buildings into dwellings. *(b)* From September quarter 1985, the scope of building activity statistics in respect of non-residential building was changed by raising the minimum value from $10,000 to $30,000 for jobs commenced, under construction or completed.

In 1985-86, building jobs approved in the Sydney Statistical Division accounted for 53 per cent of the total value of new houses, 74 per cent of the total value of new other residential buildings, 78 per cent of the total value of alterations and additions to dwellings, and 71 per cent of the total value of all building jobs approved in New South Wales.

The value of building work done in New South Wales during each of the last six years (i.e., the estimated value of the building work actually carried out during the period), is shown in the next table.

Value of Building Work Done, by Class of Building and Ownership, N.S.W. ($m)

Year ended 30 June	*New residential buildings*		*Alterations and additions to residential buildings (a)*	*Non-residential building (b)*					*Total building*
	Houses	*Other*		*Shops*	*Factories*	*Offices*	*Educational*	*Other*	
				Private sector					
1981	1,605.7	484.4	292.5	222.7	218.7	123.0	43.5	357.4	3,347.9
1982	1,413.9	623.7	358.7	223.8	325.6	146.0	43.7	346.6	3,482.0
1983	1,022.7	456.6	304.8	248.8	312.1	192.3	50.9	316.2	2,904.4
1984	1,245.0	306.0	310.5	262.0	229.0	267.7	39.8	327.6	2,987.6
1985	1,448.1	364.9	345.7	258.4	216.8	417.7	36.1	372.4	3,460.1
1986	1,545.2	382.0	440.3	325.9	285.7	527.7	55.4	485.1	4,047.3
				Public sector					
1981	50.5	51.5	0.2	10.2	49.4	79.9	110.2	176.8	528.7
1982	22.7	35.3	0.4	1.9	32.8	62.4	97.3	152.7	405.5
1983	39.0	29.2	2.4	6.8	48.9	70.5	82.8	152.8	432.4
1984	61.5	78.8	2.1	5.4	42.8	129.1	114.4	198.7	632.8
1985	52.7	93.6	6.5	22.9	23.8	242.3	144.1	202.5	788.4
1986	63.7	116.5	7.6	44.4	22.3	311.0	165.8	240.0	971.3
				Total					
1981	1,656.2	535.9	292.7	233.0	268.1	202.8	153.7	534.3	3,876.7
1982	1,436.6	659.0	359.1	225.8	358.4	208.4	141.1	499.3	3,887.7
1983	1,061.7	485.8	307.2	255.4	361.0	262.8	133.6	469.0	3,336.5
1984	1,306.5	384.9	312.6	267.4	271.8	396.9	154.1	526.3	3,620.5
1985	1,500.8	458.5	352.2	281.3	240.6	660.1	180.2	574.8	4,248.5
1986	1,608.8	498.6	447.9	370.2	308.1	838.7	221.2	725.1	5,018.6

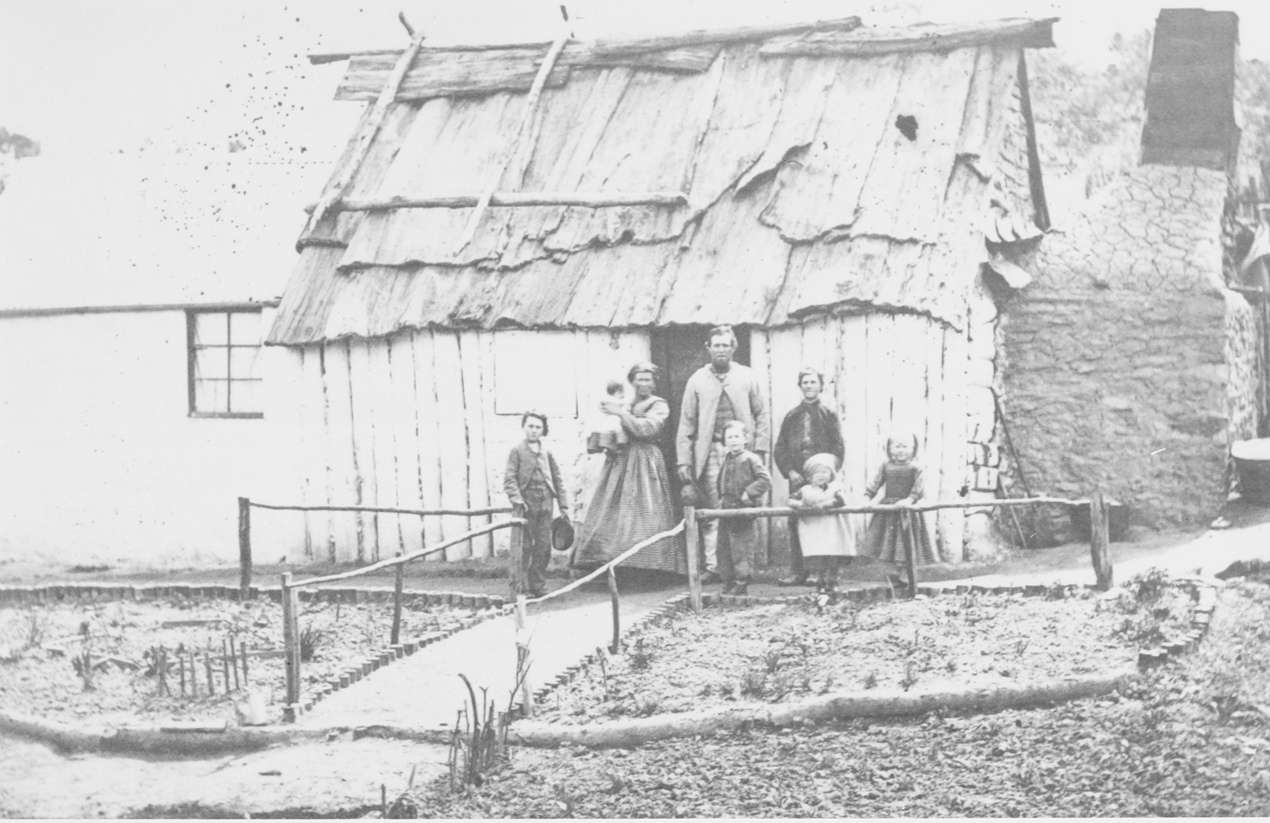
(a) Valued at $10,000 or more. Includes conversion of existing buildings into dwellings. *(b)* From September quarter 1985, the scope of building activity statistics in respect of non-residential building was changed by raising the minimum value from $10,000 to $30,000 for jobs commenced, under construction or completed.

In 1985-86, the value of work done on private new houses represented 38 per cent of the total value of private building work done; the corresponding proportion in 1980-81 was 48 per cent. Alterations and additions to dwellings accounted for 11 per cent (9 per cent in 1980-81). Similar proportions for the other categories of private building were: shops, 8 per cent in 1985-86 (7 per cent in 1980-81); factories, 7 per cent (7 per cent in 1980-81); offices, 13 per cent (4 per cent in 1980-81); and educational, 1 per cent (1 per cent in 1980-81).

Building for the public sector accounted for 16 per cent of the total value of building work done since 1980-81 (the proportion for 1985-86 is 19 per cent). Residential building (including alterations and additions) accounted for 19 per cent of the total public sector building work done during 1985-86.

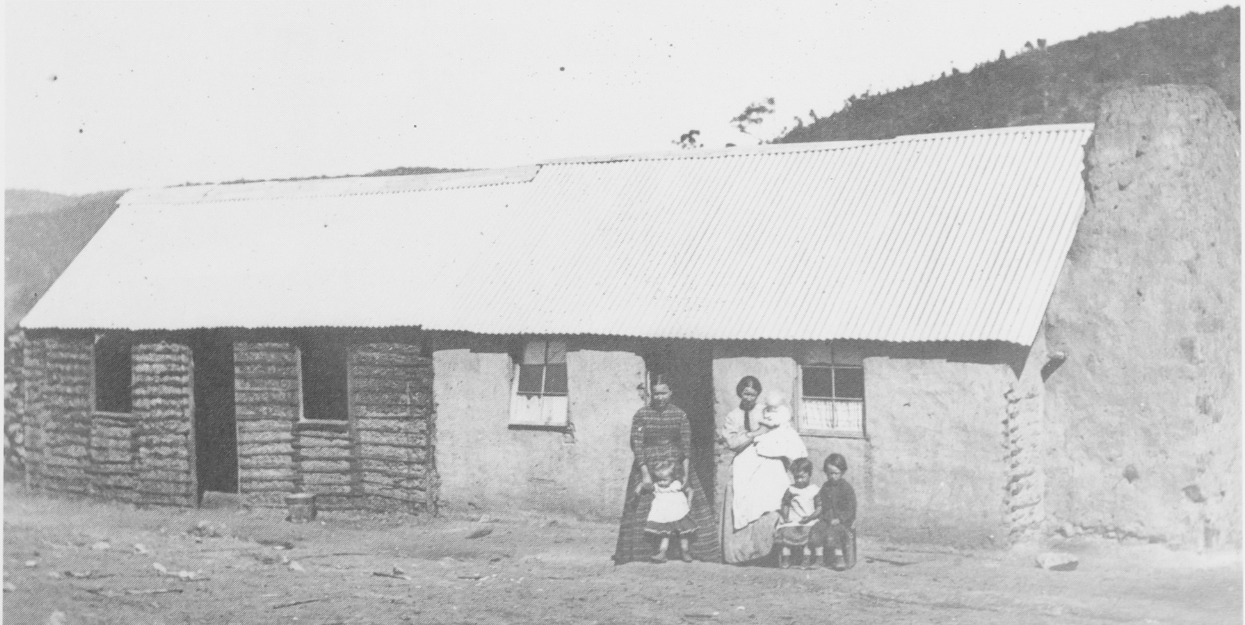
NUMBER OF NEW DWELLINGS

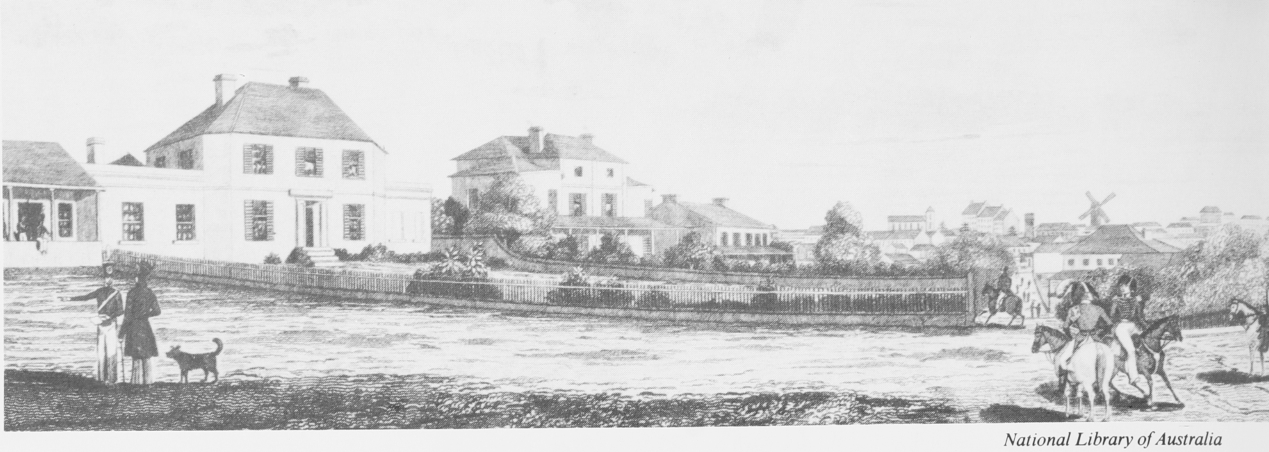
The number of new houses and other residential buildings approved, commenced, under construction, and completed in New South Wales in each of the last six years is shown in the following table.



Photographs: Mitchell Library, State Library of New South Wales (Holtermann Collection)

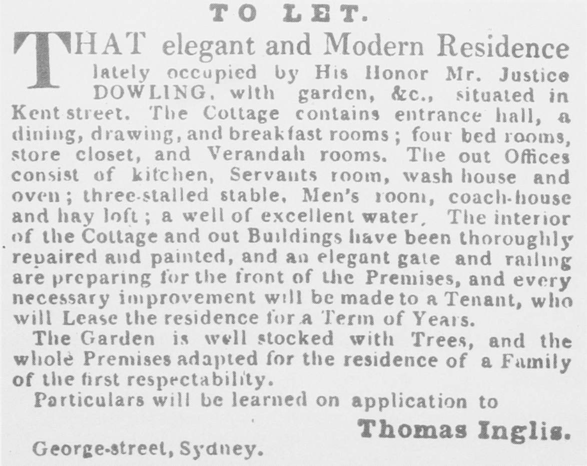
Above: Country slab cottage. The early settlers on the land were limited in resources and time — therefore their homesteads were unpretentious and constructed from readily available materials like trees, branches, clay and rubble. Their model was the English farmhouse, but adapted to Australian conditions. The slab cottage pictured shows an early form of timber construction, the walls being formed from rough sawn slabs placed vertically. In a later type, timber posts were set into the ground and the slabs were wedged horizontally between them. The roof shown here is of bark and timber and the cottage has a large clay chimney, typically detached to minimise the risk of fire. For the same reason, kitchen and wash-house were traditionally separated from the main body of the house by means of an intervening yard. *Below:* Country wattle and daub cottage with tin roof. Wattle and daub was the simplest of several constructional techniques used. In this method, walls were built of a basic frame covered by interwoven twigs (often twigs of wattle) and then plastered with mud and clay. Finally the surface was whitewashed. The bark and timber roof in the first photo was not waterproof and needed much maintenance. In this cottage we see an improvement on this situation, dating from the second half of the nineteenth century — overlaying of the roof surface with galvanised iron sheeting. Both roofs shown are gabled, but hipped roofs (with sloping ends) were more common. Examples of these "primitives" could be found in the State up to the 1870's.





National Library of Australia

Above: Sydney from the Domain near Government House, from an engraving by artist John Carmichael, 1829. Francis Greenway's own residence, in which he designed many of his famous buildings, was in this vicinity. The street shown is Bridge Street, which was named on 10 October 1810.



TO LET.

THAT elegant and Modern Residence lately occupied by His Honor Mr. Justice DOWLING, with garden, &c., situated in Kent street. The Cottage contains entrance hall, a dining, drawing, and breakfast rooms; four bed rooms, store closet, and Verandah rooms. The out Offices consist of kitchen, Servants room, wash house and oven; three-stalled stable, Men's room, coach-house and hay loft; a well of excellent water. The interior of the Cottage and out Buildings have been thoroughly repaired and painted, and an elegant gate and railing are preparing for the front of the Premises, and every necessary improvement will be made to a Tenant, who will Lease the residence for a Term of Years.

The Garden is well stocked with Trees, and the whole Premises adapted for the residence of a Family of the first respectability.

Particulars will be learned on application to

Thomas Inglis.

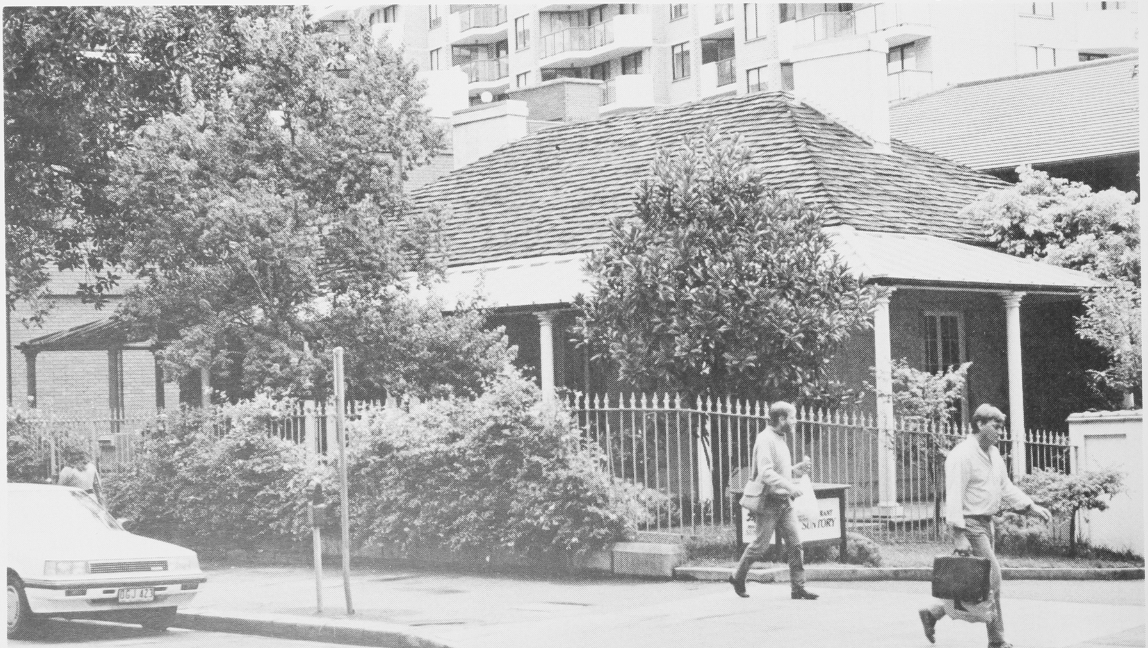
George-street, Sydney.

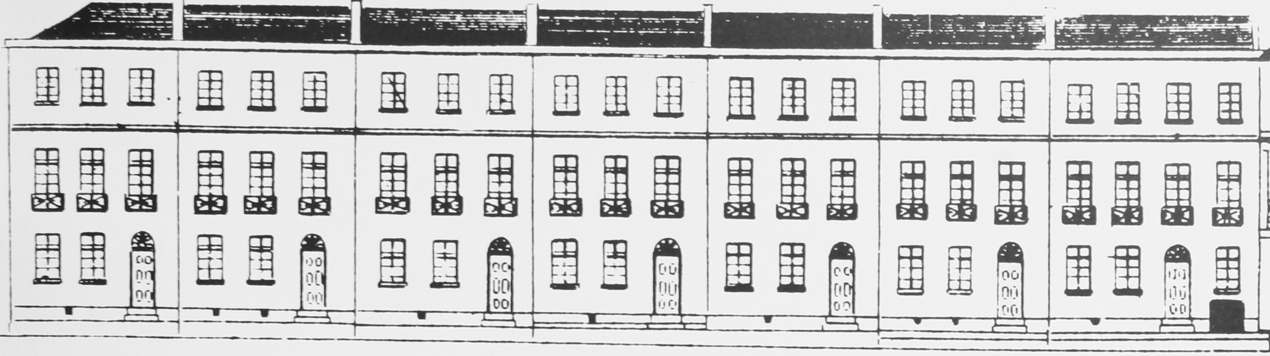
Left: "To Let" advertisement for "The Judge's House", in "The Sydney Herald" in December 1831. Judge Dowling had paid £200 per annum, a high rent for that time. The advertisement is aimed at the educated and affluent middle class whose numbers had by now increased appreciably in the colony — "adapted for Residence of Family of the first respectability" — and the description of the rooms is aimed at their demand.

Sydney Herald, 1831

Below: "The Judge's House", 531 Kent Street, Sydney in 1987. The home units in the background reflect a marked increase in inner-city dwelling over the last decade; here they stand in vivid contrast to the only surviving Georgian cottage in the inner city. Built in 1821, this is a stucco brick house with foundations and verandah paving of sandstone. Its delicate Doric columns, French casements and ornamental iron fence stamp this residence as architecturally more aware than its more utilitarian modern neighbours. In 1828, the house was rented by Mr James Dowling, newly appointed to the Supreme Court Bench but, in 1831, he moved to Darlinghurst, necessitating the advertisement. The house was occupied in future years by a diversity of tenants — a vinegar maker, a master mariner, a surgeon and a butcher. Later still it became a house for destitute men and now serves as the Sydney office of a commercial organisation.

Promotion Australia, Photograph by Peter Kelly, 1987

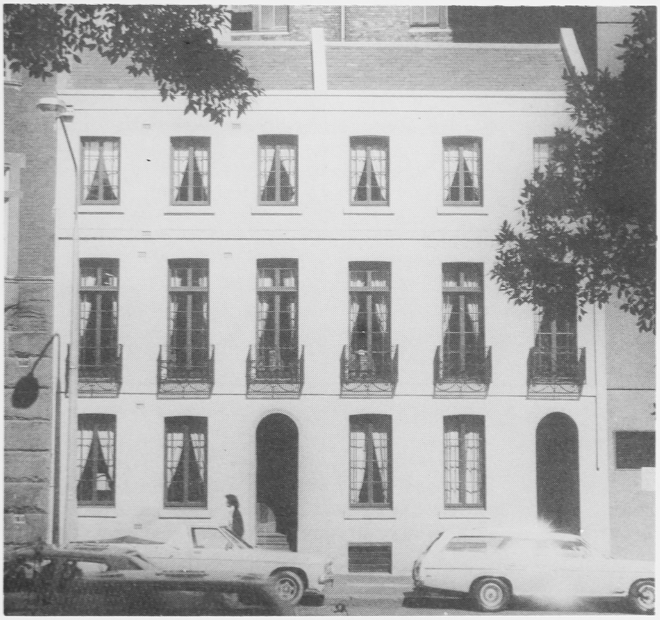


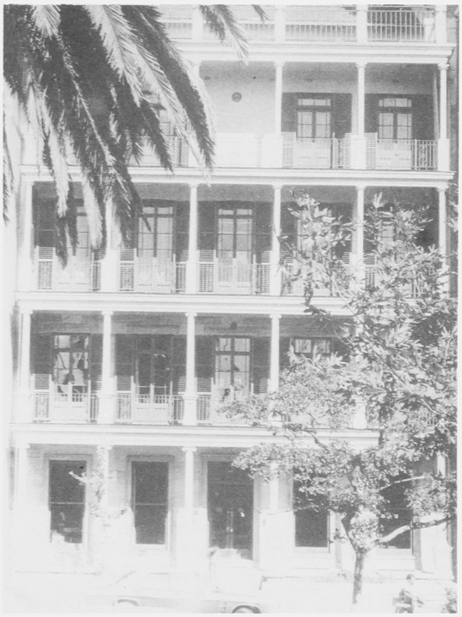


Sydney in 1848, Joseph Fowles

Below left: Three-storey terraces at 171 and 173 Macquarie Street, Sydney. These terraces are the only two remaining of seven forming "Horbury Terrace", built in 1842 and shown above. The two featured were the fifth and sixth from the left. Their elegant French windows, ironwork and small-paned windows reflect the Georgian period in which they were built. The terraces' second owner was Thomas Holt, native of Horbury, Yorkshire. Horbury Terrace is now the oldest building on the western side of Macquarie Street and it and 145 (below right) are the only surviving buildings on this side of Macquarie Street that were described by Joseph Fowles in 1848.

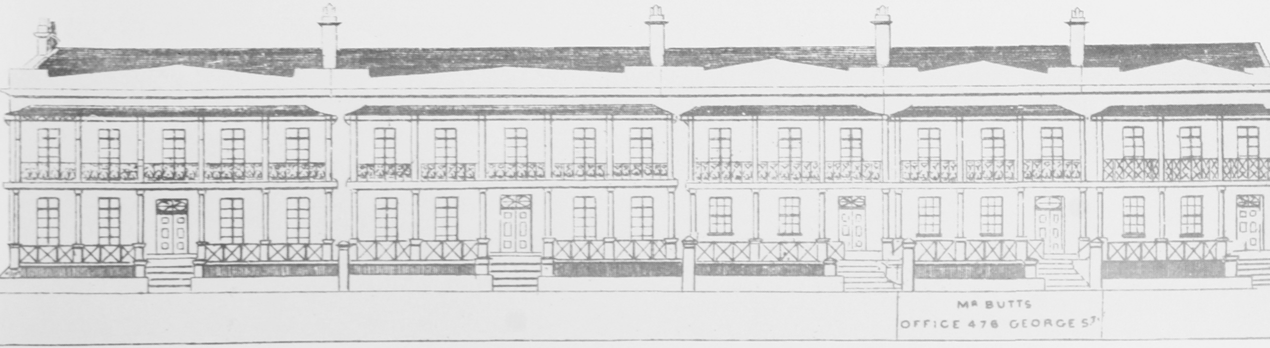
Photographs by R.M. Antill, 1982





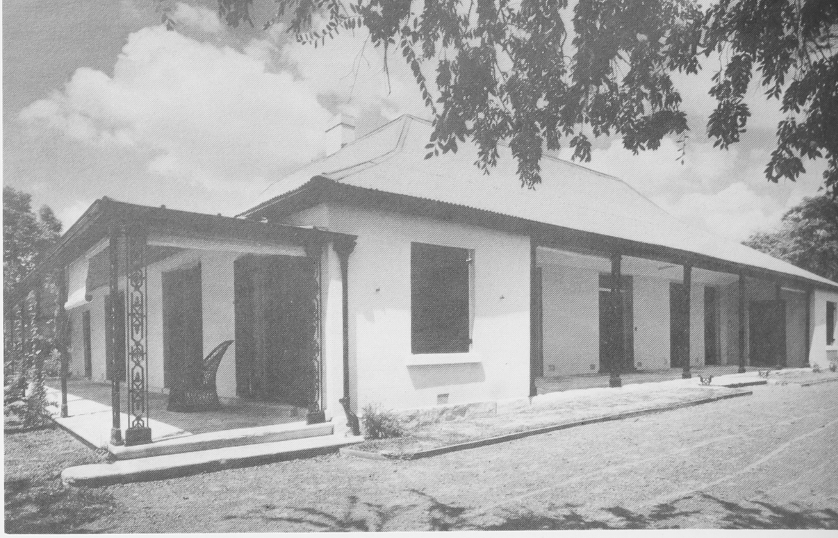
Above right: The Royal Australia College of Physicians, 145 Macquarie Street (extreme left of Fowles terrace group, below). The original terrace of five houses was built in 1848. This building (number 145) was once the town house of John Fairfax, one of the original co-proprietors of "The Sydney Herald". The building contained two storeys and a basement, and its architectural unity resulted in a pleasingly harmonious and elegant whole. French windows opened on to colonnade verandahs supported by delicate columns. In 1910, the Warrigal Club added two more storeys and a rendered brick attic, repeating the building's earlier features. In 1938, it was purchased by the Royal Australian College of Physicians which was responsible for its careful restoration in 1976.

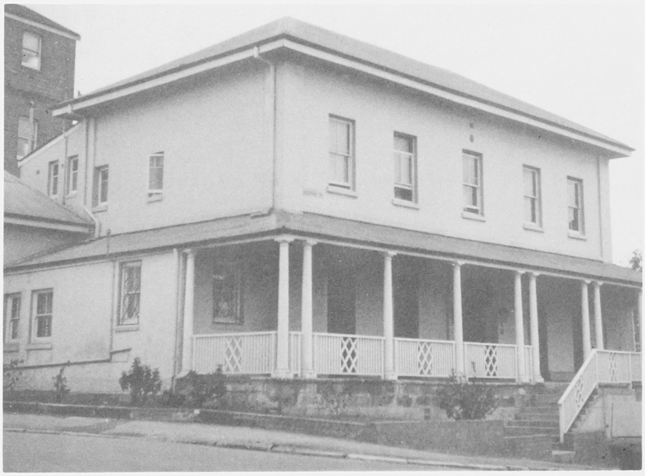
Sydney in 1848, Joseph Fowles



Right: Elizabeth Farm, Alice Street, Parramatta. Elizabeth Farm was built from 1793 to 1794, on a grant of 250 acres, by John Macarthur. The farm was named after Mrs Macarthur who unobtrusively managed it while her husband was facing an Enquiry in London. A typically simple farm homestead, it was sixty-eight feet wide by eighteen feet deep. Single-storey and rectangular, it consisted of four rooms, two on either side of a large, central hall, with cupboards and a cellar. It had a hipped, shingled roof. The ubiquitous verandah was present but did not yet extend right around the dwelling. The house has been altered many times in its history, but it is nevertheless the oldest Australian building extant.

Historic Houses Trust of N.S.W., Photograph by Max Dupain



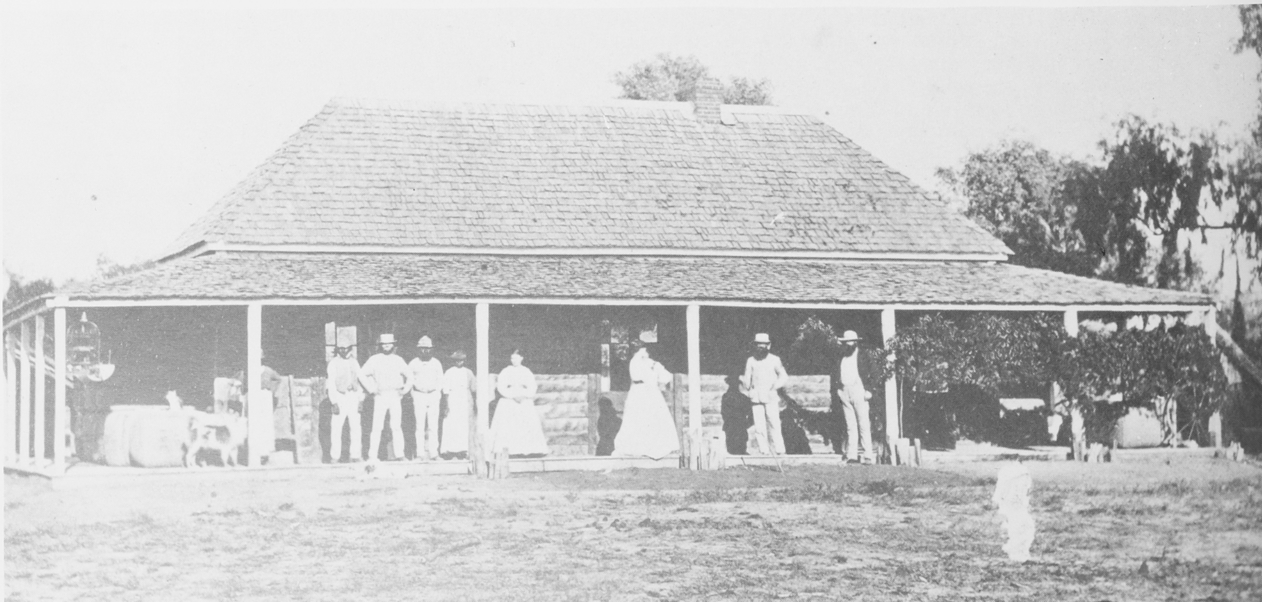


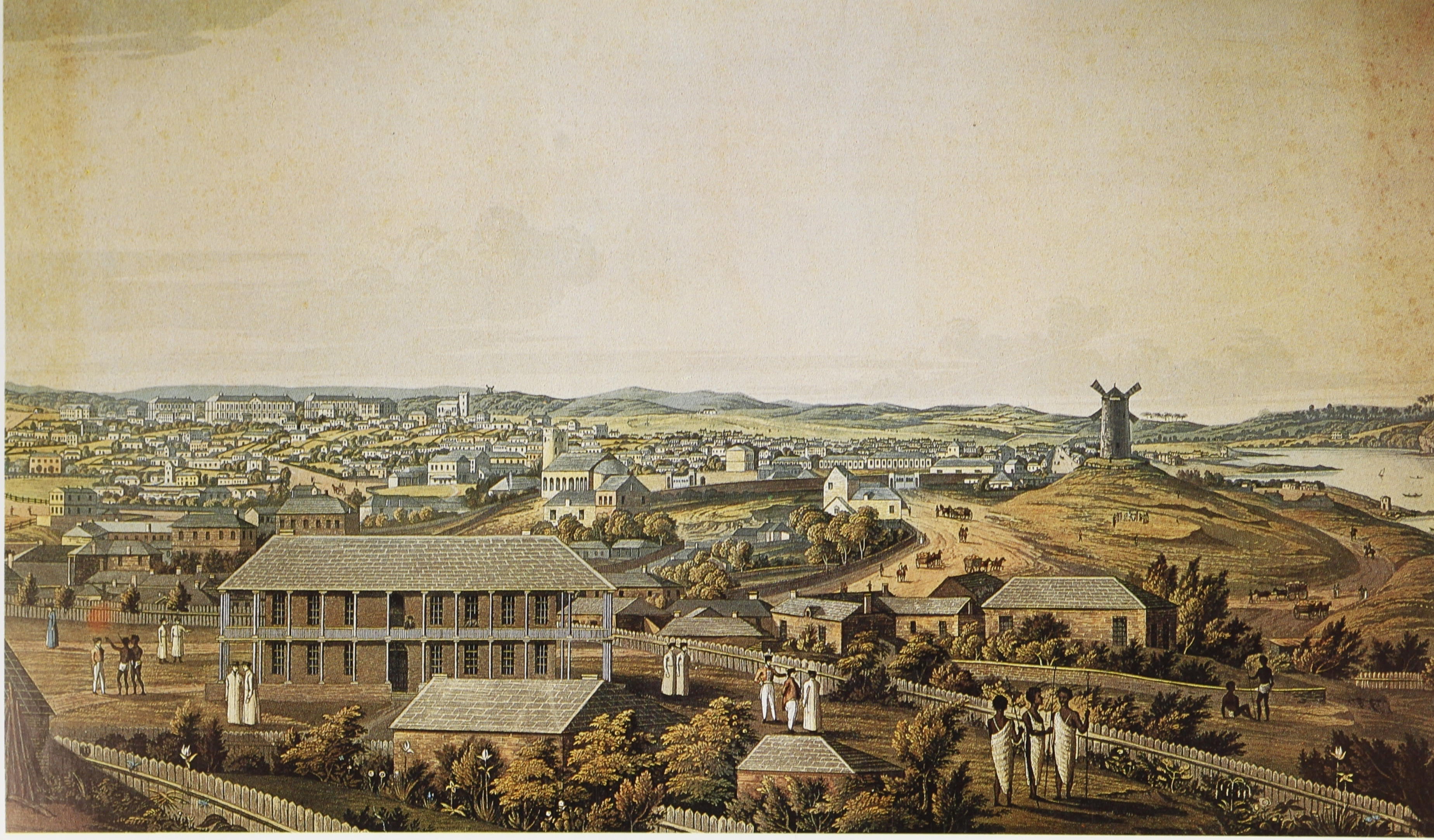
Left: Cleveland House, corner of Bedford and Buckingham Streets, Surry Hills. This building is believed to have been designed by Francis Greenway, and derived its name from Captain (later Major) Thomas Cleveland, an officer of the 73rd Regiment who arrived with Macquarie in 1809. The Major left the colony in 1811 and died in 1812, but the twelve-acre gardens, stables and training facilities he had employed for his racehorses remained to become known as "Cleveland's Gardens". Cleveland House was built in about 1824 for Daniel Cooper, a wealthy merchant and has served many purposes over the years including a school in 1834, a residence for John Tooth (the brewery founder) in the 1840's, a school again until 1867 and today is the administrative office of the N.S.W. Society for Crippled Children.

Photograph by M.J. Antill, 1969

Below: "Tarcoon Station", near the Bogan River, 1868. This homestead shows its Georgian influences but is a typical example of the Australian vernacular — of a building where practical needs are paramount. Basically box-shaped, the house lends itself to additions when needed. Sawn slabs have been used here in the later form of timber slab construction, the walls being made of lengths of timber placed horizontally into grooves in wall posts. The verandah extends around the house and is held by plain, closely-placed timber posts. The farmhouse has the typical hipped roof and the simple chimney design which succeeded the large, detached chimney of earlier times.

Mitchell Library, State Library of New South Wales



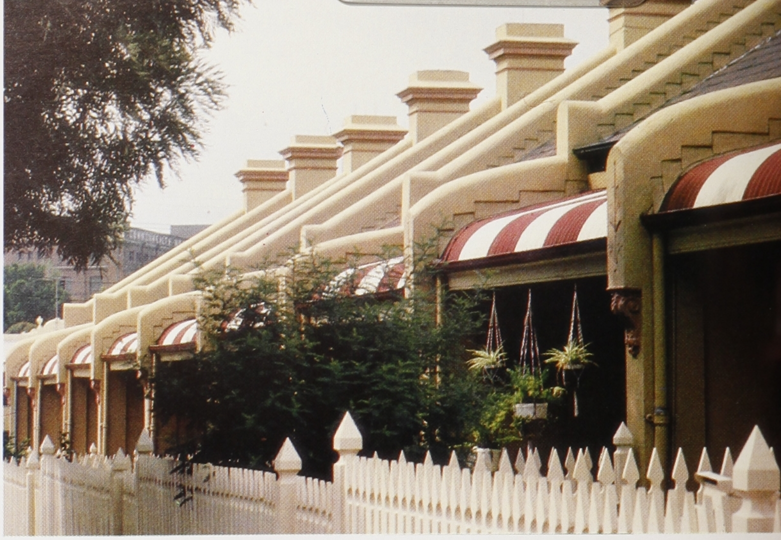


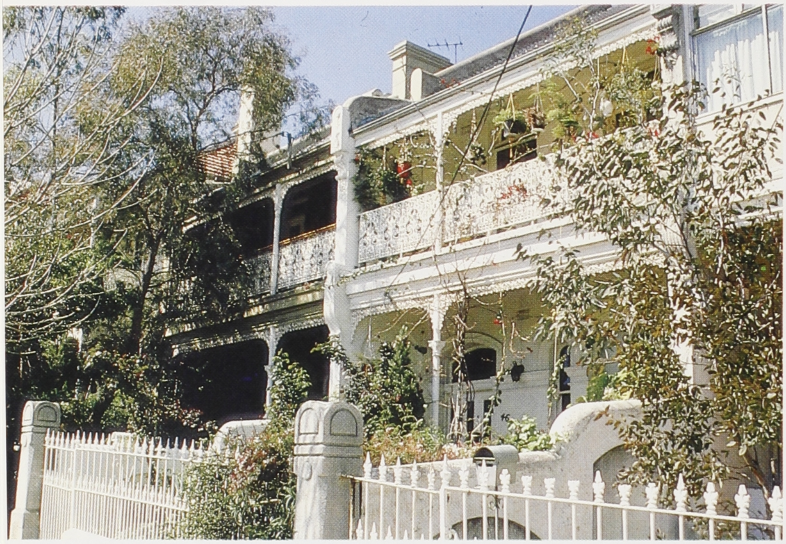
Mitchell Library, State Library of New South Wales

Major Taylor's Panorama of Sydney, 1821. The view shown was drawn by Major James Taylor of the 48th Regiment, engraved by Havell & Son, and published in London in 1823. A hand-coloured aquatint, it was issued in a three-part print of which this was the central plate. It is entitled "Town of Sydney in New South Wales" and purported to combine into a comprehensive view of Sydney; in actuality, it is inaccurate in certain topographical and architectural respects. The building in the immediate foreground is the Military Hospital on Observatory Hill, designed by John Watts and built under Macquarie in 1815. Its site was later occupied by Fort Street Girls' High School and today is the National Trust Centre. In the middle foreground can be seen the original St. Philip's Church on Church Hill. In the distance are Macquarie's General Hospital, with Hyde Park Barracks and St. James Church nearby.

Right: Single-storey terraces, Glebe, 1981. Since the 1830's, the growing population of Sydney had steadily increased the demand for space and the price of land; as a result, sweeping building regulations were imposed in 1838. These were incompatible with further development of the Australian Colonial style of architecture. Instead the London solution — the terrace house — was applied to Sydney and speculative builders erected rows of them. These mushroomed in the Victorian era and replaced many of the old Colonial buildings. The terraces shown here display typical features for their type — repetition of design, separation of units merely by elongated walls, picket fence, and identical curved and striped iron roofs. This redevelopment in Glebe in 1978 again reflects the current movement away from indiscriminate development in distant areas of Sydney and toward the adaptation of old buildings to new needs in the inner areas.

Promotion Australia



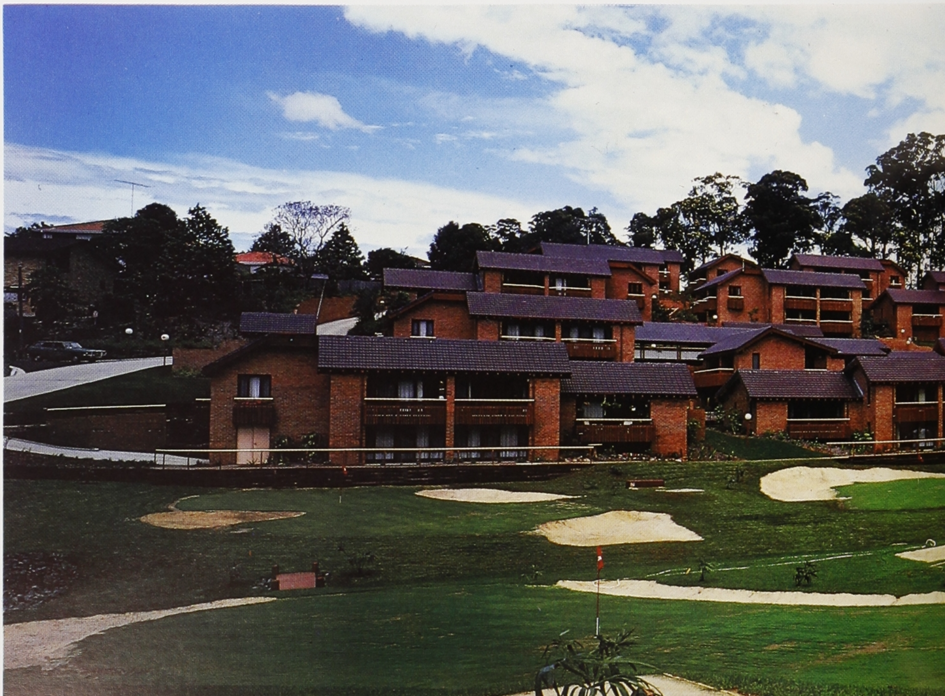


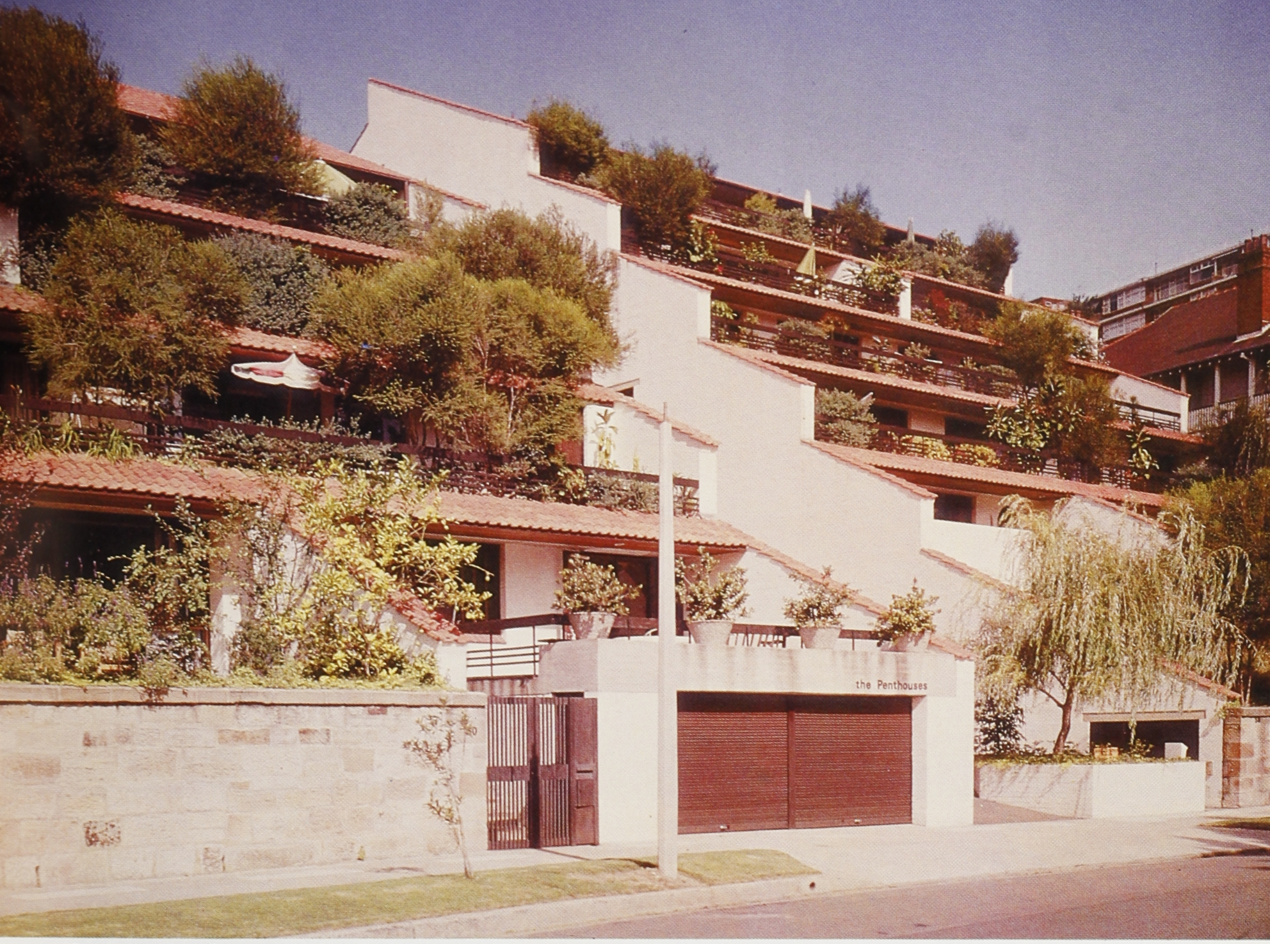
Left: Inner-city housing, 1982. Terrace housing increased rapidly in the last half of the nineteenth century, springing up of necessity near the city and its factories. Most terraces were double-storeyed, each unit averaging fifteen feet in width and two to three rooms in depth. By now the kitchen was attached to the main body of the house, although the laundry, bathroom and toilet were still set apart. The windows were large plate glass and, at the front, Italianate round-topped ones, often divided into three parts, were popular. Increasingly, the drabness of these repetitive, heavy cement buildings was relieved by ornamental cast iron work on verandahs and railings. The iron was at first shipped from England but became readily available in Australia after 1860.

Promotion Australia

Right: Cluster housing, Parkway Estate, Bayview, architect Colin Henry. Parkland Villas, shown here, feature cluster type housing for retirement villages, a trend that has aroused marked interest in recent years, as the aged section of the population grows. Uniform designs and tiles have been used in the villas, which are clustered around a central recreation area. Cement tiles, developed by Monier Ltd., have become the main type of tile used since World War II, before which terracotta was mainly used.

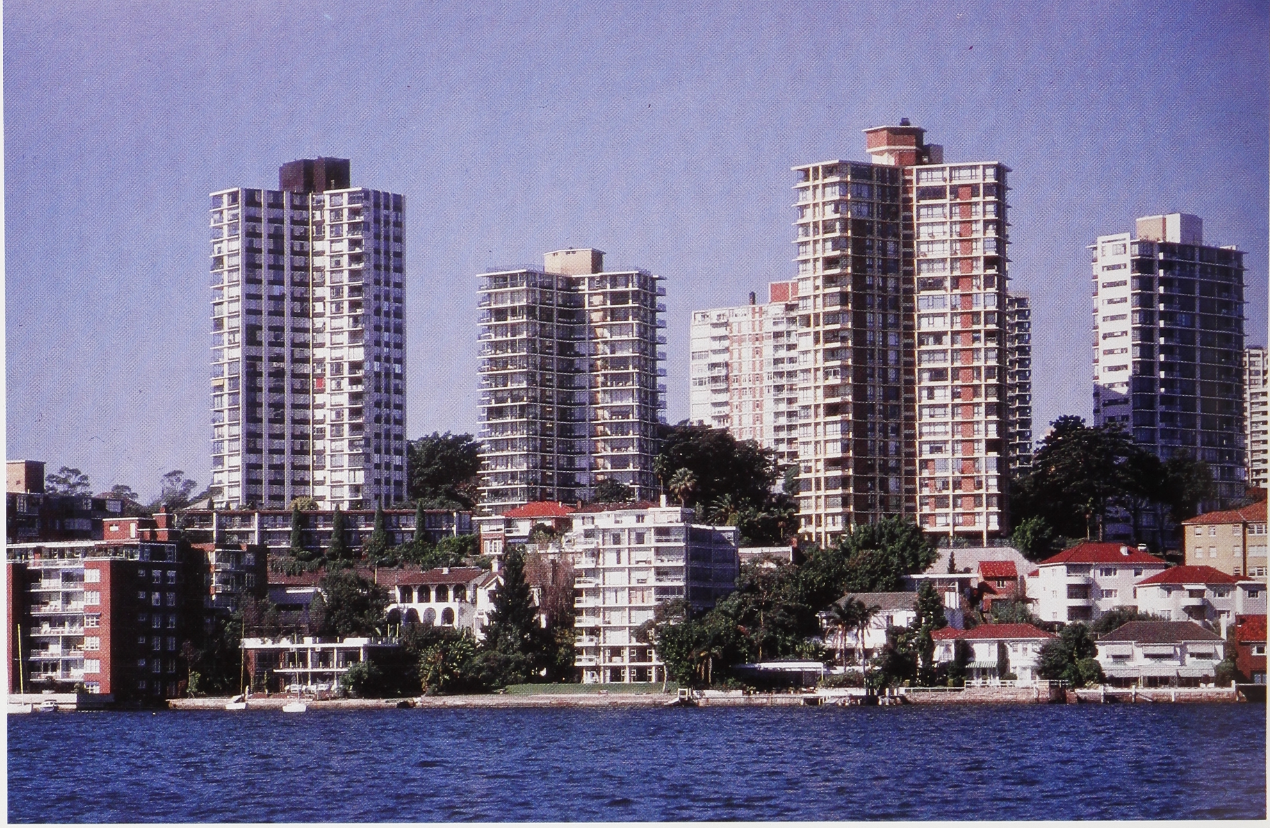
Monier Ltd





Promotion Australia

Above: Townhouses, 58-61 New Beach Road, Darling Point. These townhouses were built in 1967, by architects Anchor, Mortlock, Murray and Woolley. Their arrangement ensures that each unit can benefit from the fine view. The complex consists of eleven townhouses which differ in plan and size, but all have a terrace 12 feet wide by up to 72 feet long, most being on the roof of the unit below. Each townhouse has a small garden, individual access and car-parking facilities. These dwellings thus display both consideration for their inhabitants' comfort and the advantages of group living.

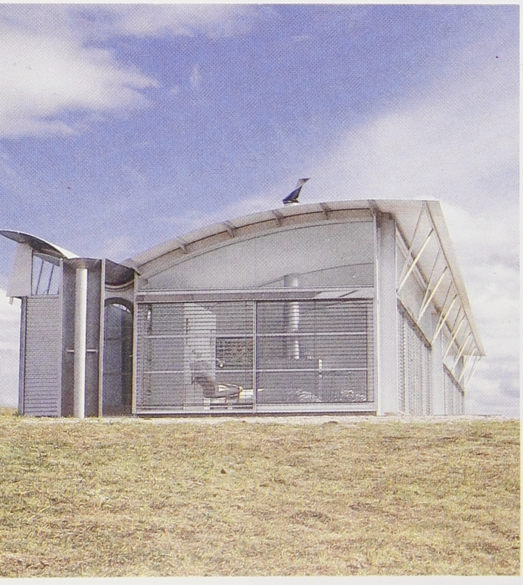


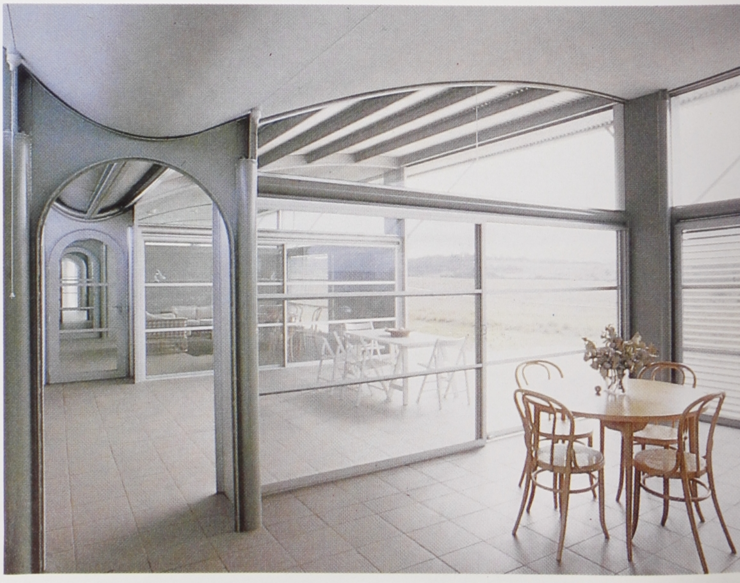
Promotion Australia

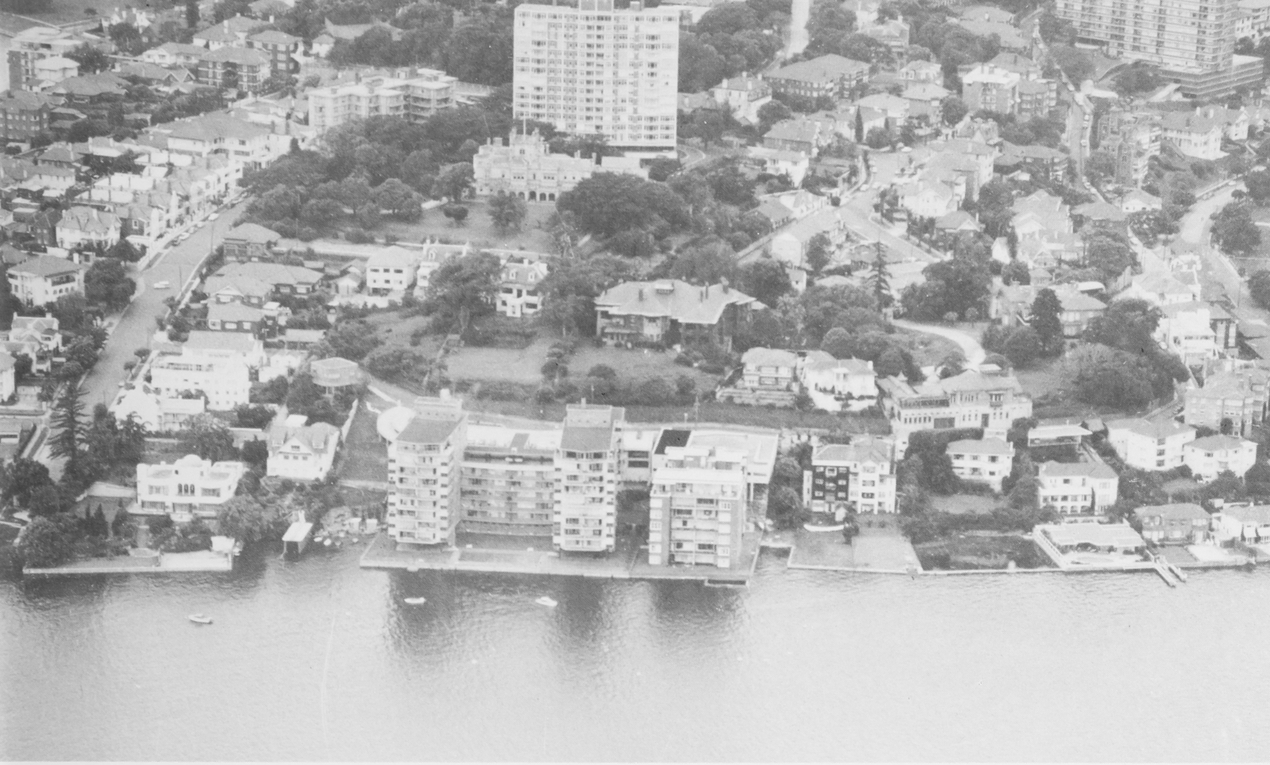
Above and adjacent page, top: Darling Point, 1980's and 1960's. These two photographs emphasise the spread of high-rise living over this twenty-year period, even at the affluent end of the social scale. The mansions and large homes surrounded by spacious grounds (shown above right) became increasingly uneconomic to maintain in the postwar world. As the housing grew scarcer and suburbs spread, private builders found flat or home-unit construction very profitable, particularly in areas with water views — the result, as we see above, was often the largely unplanned development of "expensive human filing cabinets". Parallel with this more expensive high-rise development went speculative ventures catering for the middle classes in middle and outer suburbs, and government endeavours to deal with the problem of housing the poorest strata of society.

A holiday house designed by Glenn Murcutt won the 1985 Wilkinson Award for Housing. Set overlooking a deserted stretch of southern N.S.W coastline, the house exemplifies Murcutt's pioneering form of a low-scaled building externally clad in corrugated iron. Minimal detailing and untreated materials relate it to the austere landscape, while glass walls on three sides, with adjustable metal venetians for control and variety of light, allow closeness to the elements yet protection from them. The house was judged to be exceptional as a harmonious response to a demanding setting. It was the fourth Wilkinson Award to be won by Glenn Murcutt.

Michael Nicholson, by courtesy of the Royal Australian Institute of Architects, N.S.W. Chapter



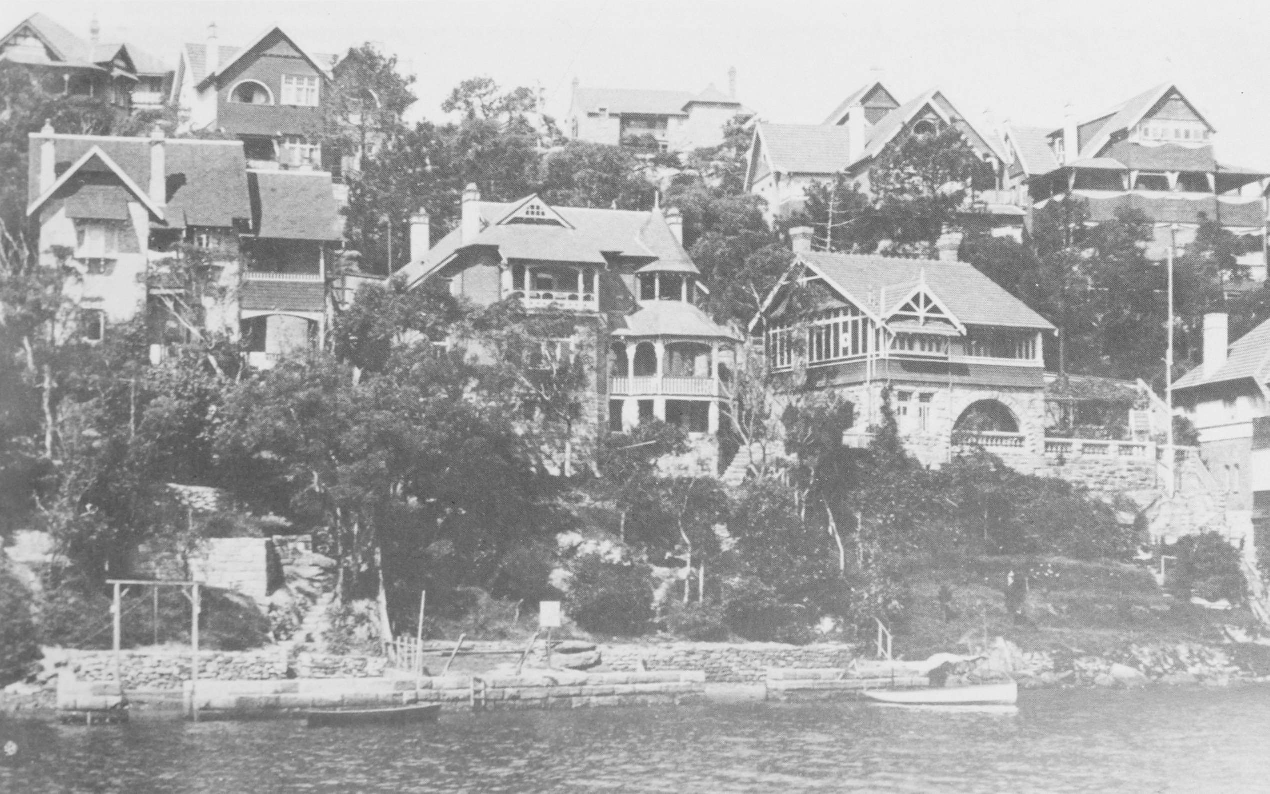


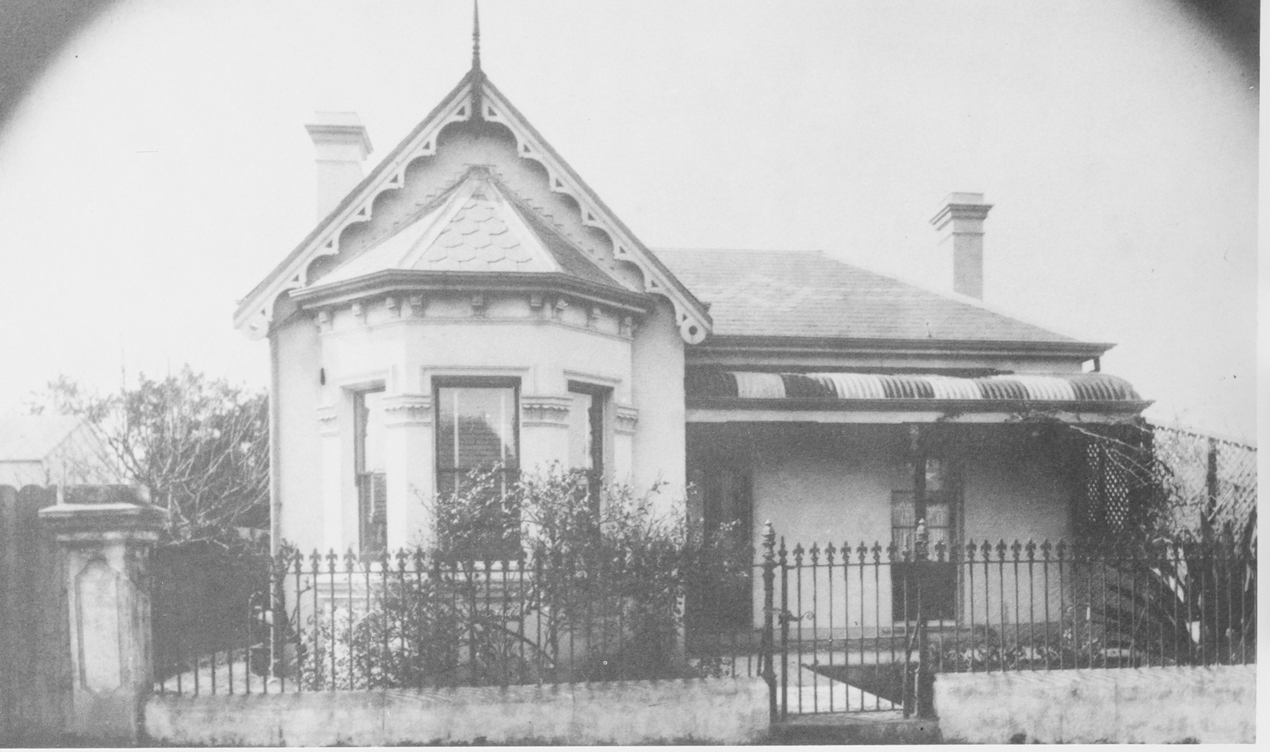


Mirror Newspapers Ltd.

Below: Harbour foreshores, Neutral Bay — Curraghbeena Point about 1920. These homes were typical of many large houses constructed on the north side of Sydney Harbour in the Federation architectural period (1880-1910). Internally, not only the kitchen but also laundry, bathroom and toilet were by now contained within the body of the house. Externally, the cast iron trimmings so frequently found in Victorian times disappeared and were replaced with turned and slatted timber. The examples shown here display many Federation characteristics — asymmetrical planning, "picturesque" corner turrets, arched openings, white-trimmed verandahs and plain walls of brick or rusticated stone. Typical also is the way in which the roofs dominate the houses — these are high, are relieved by false gables or frilled ridges, and combine both hipped and gabled roof features.

Mitchell Library, State Library of New South Wales



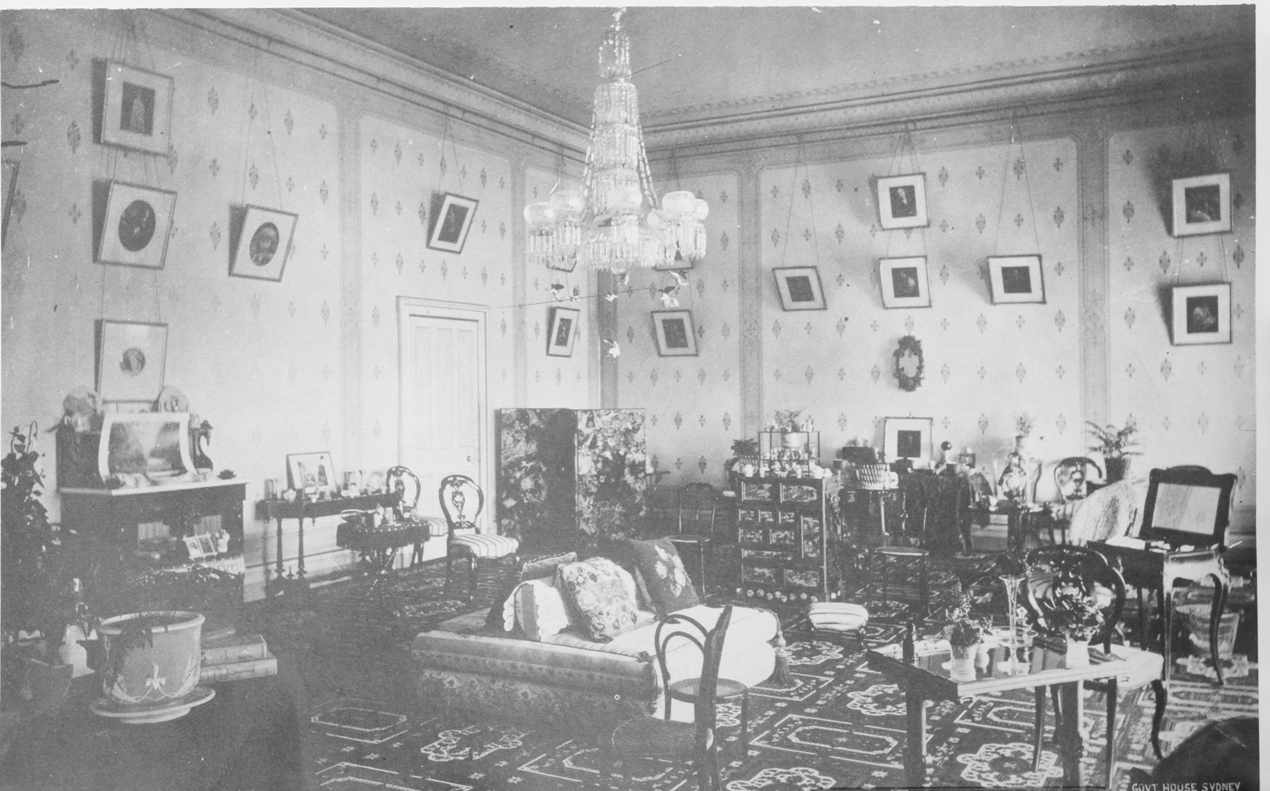


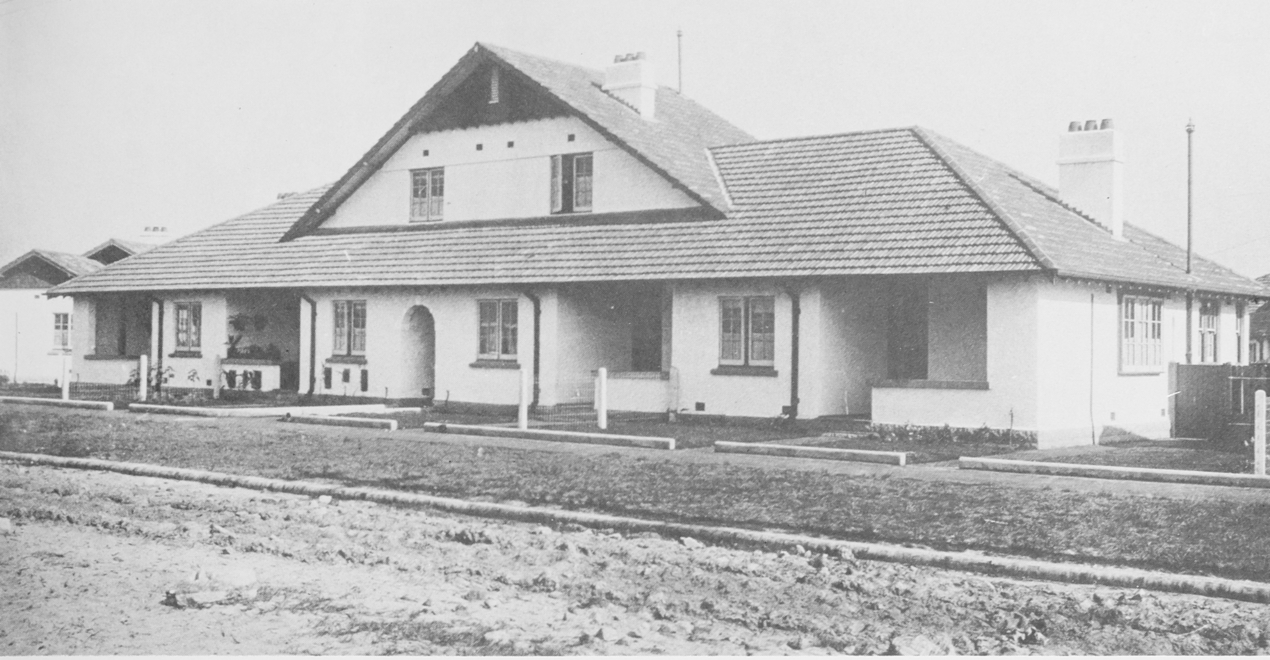
Archives Office of N.S.W.

Above: Small cottage, early twentieth century, of a type now much prized in inner Sydney. A late example of the Gothic Revival that occurred in many inner Sydney suburbs, this house presents typical gable ends finished with a bay window. Other features common to its type are the scalloped, carved fascia boards, roof finial, patterned slate roof, and striped, curving corrugated iron roof over the verandah.

Below: Government House interior, Sydney, 1874. This interior reflects the Victorian love of embellishment and ornamentation at any cost. From 1840, the Victorians paid increased attention to bolder patterns and darker colours, preferring also heavier fabrics in curtains and furnishings to set them off. Here a boldly marked, dark carpet has been used. Victorian walls were usually papered, often with a stencilled motif, and with borders at the top, as in this example. The profusion of separate pieces of furniture and indiscriminately hung photographs was also very Victorian — even the ornate chandelier is further embellished!

N.S.W. Government Printer



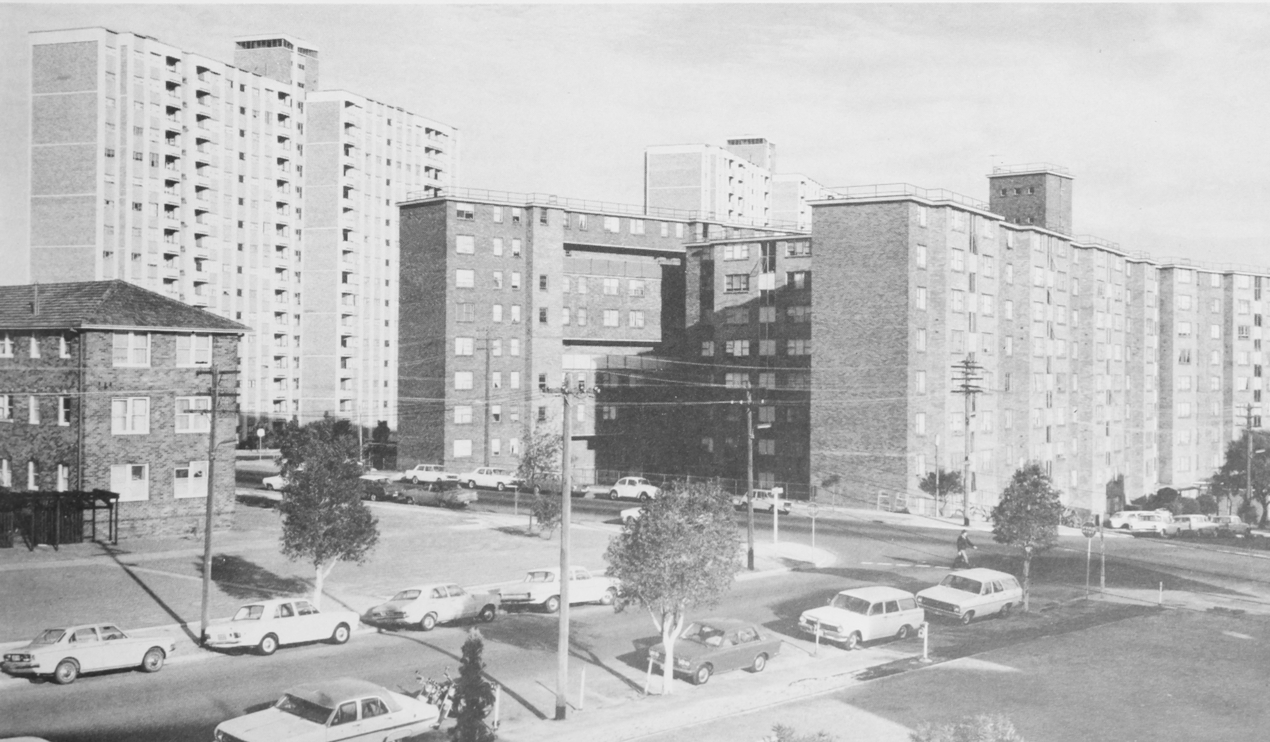


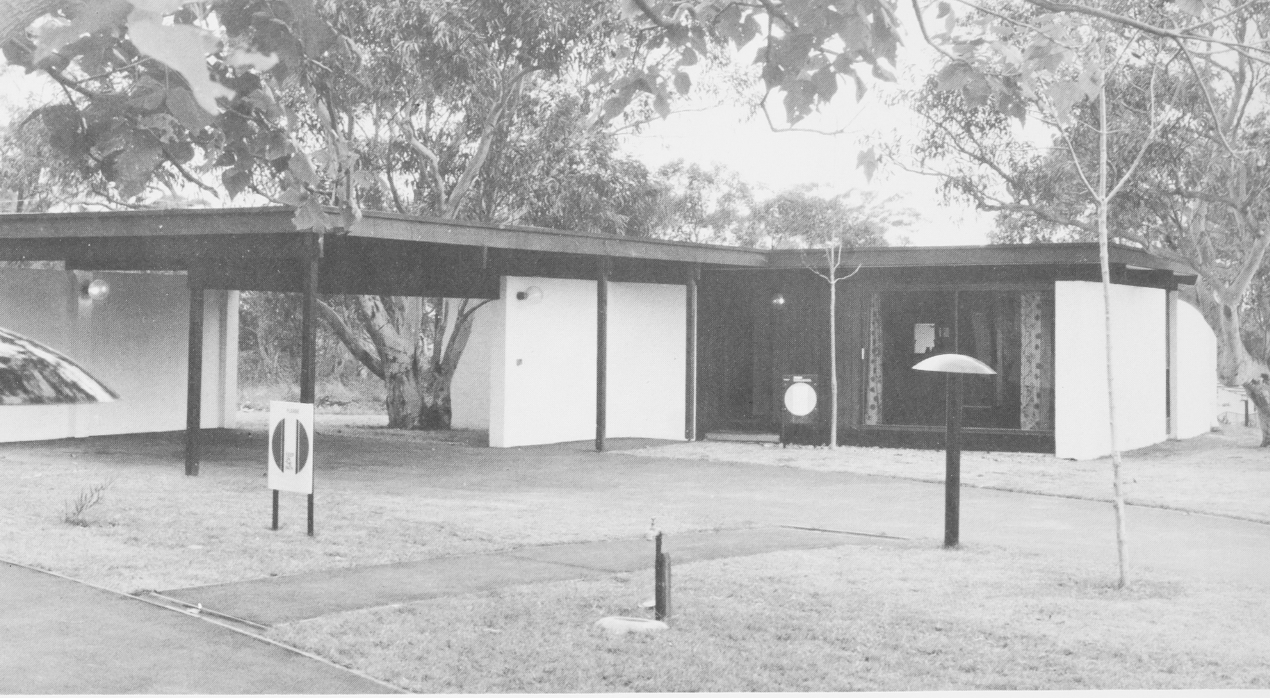
Archives Office of N.S.W.

Above: The first government housing scheme in the suburbs of Sydney commenced at the "Dacey Garden Suburb" in 1912. The photograph shows a typical example of a dwelling in 1916. In the original scheme providing for the construction of a garden suburb at Daceyville, an area of 336 acres of crown land was set aside. In addition to the dwellings, there was provision for roads, parks, schools, churches, a picture theatre and shops. The total number of houses was 1,673. Materials used in the cottages were bricks or concrete blocks, on stone or rubble foundations, with tile and slate roofs. Their size varied from three to four rooms with kitchen and bathroom. Rents were set to recover 4 per cent of capital value, cost of insurance, rates, taxes, and repairs, expenses of management, and a sinking fund in respect of the capital cost of the building. Recently this suburb has been upgraded and refurbished.

Below: Modern, high-rise housing, Redfern, Sydney. In the 1950's, shortage of housing, aggravated by scarcity of building materials and skilled labour, made the plight of the low income earner even worse. The New South Wales Housing Commission attempted to solve the problem by demolishing some of Sydney's worst slums near the city. The Commission replaced them with large blocks of flats, three to fifteen storeys in height, and equipped the open areas with playground amenities for the children. The flats, however, have met criticism on the grounds of lack of individuality. In recent years, there has been a marked swing away from this type of planned government development of housing.

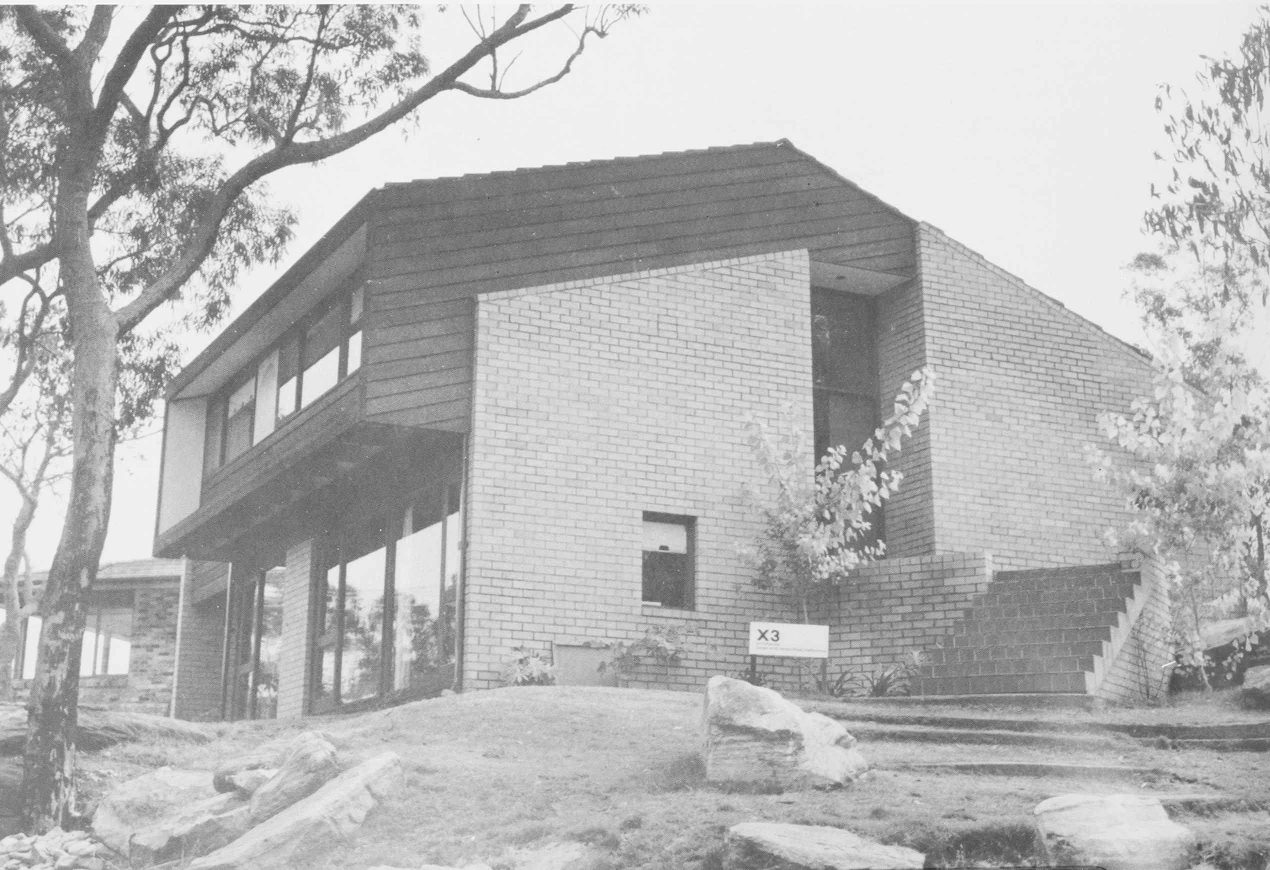
Promotion Australia





Above and below: Pettit and Sevitt award-winning Project Homes, 1971, by architect Ken Woolley. The project home which emerged in the 1960's owed its origins to the "Sydney School" of architects. In the 1950's, a small group of Sydney architects had aimed at a brand of architecture which would achieve a more natural, truthful relationship among all architectural building blocks — the site, the materials, the climate, and the form and function of the particular building. In 1958, Sydney architects, Ken Woolley and Michael Dysart, won a housing competition and, based on the interest they aroused, the "project home" emerged in about 1960. For the first time, building firms offered the Australian public "off-the-shelf", architect-designed houses within a standard range of designs and prices. The first example shown has three bedrooms, living and dining rooms, kitchen and bathroom, and carport as an optional extra. The second is a split-level home featuring three bedrooms, two bathrooms, a separate study and a large family room.

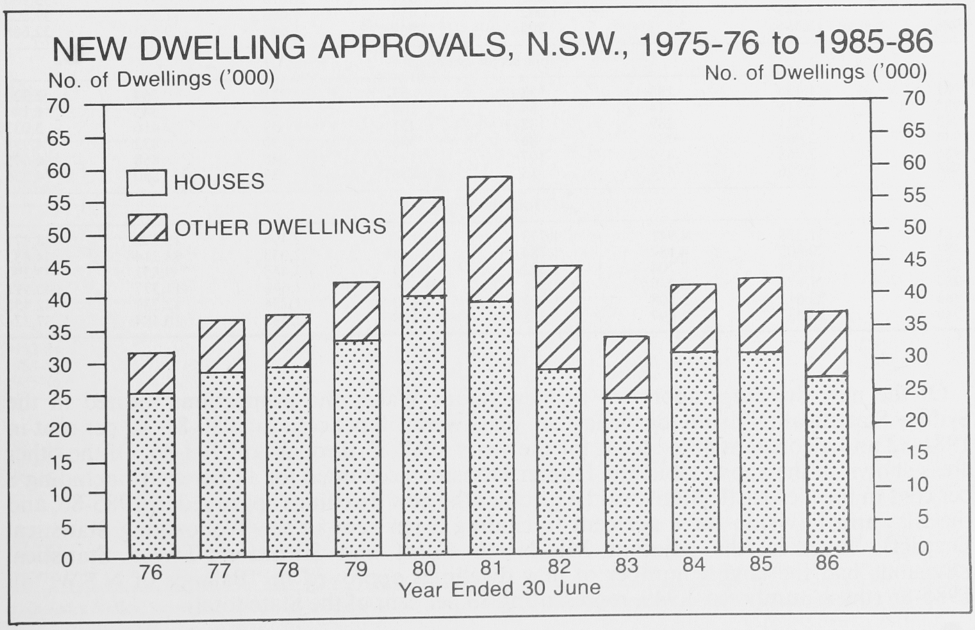
Photographs: Promotion Australia



Number of New Dwellings by Ownership, Class of Building and Stage of Construction, N.S.W.

	Private sector			*Public sector*			*Total*		
Year ended 30 June	*Houses (a)*	*Other residential buildings*	*Total dwellings*	*Houses*	*Other residential buildings*	*Total dwellings*	*Houses (a)*	*Other buildings*	*Total residential buildings*
				Approved					
1981	38,460	17,685	56,145	1,174	1,152	2,326	39,634	18,837	58,471
1982	27,721	15,968	43,689	794	350	1,144	28,515	16,318	44,833
1983	22,486	7,767	30,253	1,365	1,672	3,037	23,851	9,439	33,290
1984	29,396	6,564	35,960	1,832	3,119	4,951	31,228	9,683	40,911
1985	29,205	8,601	37,806	1,816	2,829	4,645	31,021	11,430	42,451
1986	25,830	6,838	32,668	1,216	3,340	4,556	27,046	10,178	37,224
				Commenced					
1981	37,250	16,810	54,060	1,251	1,310	2,561	38,500	18,120	56,620
1982	27,350	13,885	41,240	628	713	1,341	27,980	14,598	42,580
1983	19,980	6,751	26,740	1,357	1,378	2,735	21,340	8,129	29,470
1984	26,810	5,804	32,620	1,849	2,633	4,482	28,660	8,437	37,100
1985	27,700	7,394	35,090	1,870	2,599	4,469	29,570	9,993	39,560
1986	25,020	6,740	31,760	1,110	2,546	3,656	26,130	9,287	35,420
				Under construction at end of period					
1981	17,240	12,448	29,690	906	1,314	2,220	18,150	13,762	31,910
1982	11,910	10,175	22,080	440	760	1,200	12,350	10,935	23,280
1983	9,770	5,431	15,200	704	952	1,656	10,470	6,383	16,850
1984	12,250	5,518	17,770	1,083	2,320	3,403	13,340	7,838	21,170
1985	13,960	6,637	20,500	1,390	2,530	3,920	15,350	9,167	24,520
1986	11,890	6,183	18,070	840	2,999	3,839	12,730	9,182	21,910
				Completed					
1981	34,400	12,112	46,520	1,801	1,681	3,482	36,200	13,793	50,000
1982	31,620	14,896	46,520	1,073	1,192	2,265	32,690	16,088	48,780
1983	22,000	11,402	33,400	1,092	1,174	2,266	23,090	12,576	35,670
1984	24,100	5,526	29,630	1,464	1,254	2,718	25,560	6,780	32,340
1985	25,690	6,182	31,870	1,560	2,389	3,949	27,250	8,571	35,820
1986	26,740	6,889	33,630	1,660	2,121	3,781	28,400	9,010	37,410

(a) Figures for new private houses and for total dwellings commenced, under construction and completed have been rounded to the nearest 10 units.



The total number of new dwelling units completed reached a peak of 50,000 in 1980-81, the highest level since 1970-71 (49,397). In 1981-82 the number completed decreased slightly to 48,780 (2 per cent below the previous year), then in 1982-83 it fell sharply to 35,670 (27 per cent) and in 1983-84 fell to 32,340 (a further 9 per cent), the lowest level for the last eight years. A recovery of new dwelling units completed began in 1984-85 with a rise of 11 per cent, and continued into 1985-86 with a further rise of 4 per cent. New houses comprised 76 per cent of new dwellings completed in 1985-86 (72 per cent in 1980-81).

Dwelling building jobs for public sector ownership (mainly Department of Housing) accounted for 10 per cent of the total number of new dwelling units completed in 1985-86 compared with 7 per cent in 1980-81.

A geographical distribution of the number of new dwellings approved in the last six years is given in the next table.

Number of New Dwellings Approved in Areas of N.S.W. by Class of Building and Ownership

		Hunter Statistical Division		*Illawarra Statistical Division*			
Year ended 30 June	*Sydney Statistical Division*	*Newcastle Statistical District*	*Balance*	*Wollongong Statistical District*	*Balance*	*Balance of N.S.W.*	*Total N.S.W.*
				Houses			
1981	19,890	3,892	1,107	1,481	2,230	11,034	39,634
1982	12,000	3,066	1,141	1,123	1,766	9,419	28,515
1983	11,418	2,099	983	913	1,256	7,182	23,851
1984	14,977	3,016	1,012	1,236	1,503	9,484	31,228
1985	14,920	2,526	987	942	1,582	10,064	31,021
1986	13,137	2,120	761	791	1,520	8,717	27,046
				Other residential buildings			
1981	11,448	1,049	666	698	264	4,712	18,837
1982	8,802	1,116	643	695	267	4,795	16,318
1983	5,716	605	319	423	207	2,169	9,439
1984	6,197	733	274	443	143	1,893	9,683
1985	7,693	582	122	708	152	2,173	11,430
1986	7,200	577	57	412	165	1,767	10,178
				Private sector dwellings			
1981	29,902	4,756	1,720	2,112	2,473	15,182	56,145
1982	20,487	4,108	1,700	1,714	2,009	13,671	43,689
1983	15,213	2,415	1,165	1,101	1,424	8,935	30,253
1984	18,205	3,013	1,200	1,371	1,616	10,555	35,960
1985	19,645	2,649	1,002	1,455	1,686	11,369	37,806
1986	17,411	2,223	805	947	1,648	9,634	32,668
				Public sector dwellings			
1981	1,436	185	53	67	21	564	2,326
1982	315	74	84	104	24	543	1,144
1983	1,921	289	137	235	39	416	3,037
1984	2,969	736	86	308	30	822	4,951
1985	2,968	459	107	195	48	868	4,645
1986	2,926	474	13	256	37	850	4,556
				Total dwellings			
1981	31,338	4,941	1,773	2,179	2,494	15,746	58,471
1982	20,802	4,182	1,784	1,818	2,033	14,214	44,833
1983	17,134	2,704	1,302	1,336	1,463	9,351	33,290
1984	21,174	3,749	1,286	1,679	1,646	11,377	40,911
1985	22,613	3,108	1,109	1,650	1,734	12,237	42,451
1986	20,337	2,697	818	1,203	1,685	10,484	37,224

Of the new dwellings approved in New South Wales, the proportions located in the Sydney Statistical Division for the last six years were: 50 per cent in 1980-81, 42 per cent in 1981-82 and a constant 48 per cent for the years 1982-83 through to 1985-86. Of the other areas shown in the above table, the Hunter Division accounted for 11 per cent (including 8 per cent in the Newcastle Statistical District) of the new dwellings approved in 1985-86, and the Illawarra Division for 8 per cent (including 3 per cent in the Wollongong Statistical District). Together, the adjacent Mid-North Coast and Richmond-Tweed Statistical Divisions had the largest number of new dwellings approved in "Balance of N.S.W." in 1985-86 (these numbered 3,949, representing 13 per cent of the State total).

CONSTRUCTION (OTHER THAN BUILDING)

Statistics relating to the construction of roads, bridges, railways, harbours, electric power transmission and distribution lines, dams, and water distribution systems, sewerage systems, pipelines, street lighting, heavy electrical generating and industrial plant and equipment, telecommunications structures and other work of a non-building nature are compiled each quarter. The statistics relate to work by private contractors on prime contracts valued at $100,000 or more and are inclusive of all associated sub-contract work performed for the prime contractor. Alterations and additions undertaken as prime contracts valued at $100,000 or more are included. Repairs and maintenance contracts, construction undertaken by government authorities involving their own work forces, and construction on their own account by enterprises in the private sector, are excluded.

Details of construction (other than building) activity are given in terms of *prime contracts* only. Although the prime contract is the normal method of arranging business between a project owner and a contractor, some variation can occur in the extent to which the prime contract covers the value of plant, machinery, and materials associated with construction (other than building) projects. For example, plant, machinery and materials will not be included in the value of the prime contract when supplied directly by the project owner. Consequently, the statistics do not give the total cost of projects with which the prime contractors are associated.

A prime contract for the installation of equipment which is an integral part of a construction (other than building) project is at present included in the statistics but those prime contracts which involve only the supply of materials and equipment are excluded.

Prime contracts have been classified in the following manner:

(a) where there is only one type of good or service produced, the contract is classified according to that type of good or service;

(b) where there are a number of goods and/or services produced within the one prime contract, that contract is classified according to the predominant (in terms of value) type of goods or service produced; and

(c) where a prime contract is only one of many contracts involved in a larger project, and the goods and/or services produced by the prime contract are only an essential part of the larger project, the contract is classified according to the goods or services produced by the larger project.

Type of Construction (Other than Building), New South Wales ($m)

Period	*Roads, highways, and related structures*	*Dams, water supply, and sewerage*	*Power transmisssion and electrical generating plant*	*Harbours*	*Heavy industrial plant and equipment n.e.c.*	*Other (a)*	*Total construction (other than building)*		
							Private sector	*Public sector*	*Total*
				Commenced					
1983-84	191	98	318	3	107	177	123	771	894
1984-85	173	59	90	2	107	221	178	474	653
1985-86	335	113	114	21	292	199	368	707	1,075
				Completed					
1983-84	104	78	159	13	247	191	270	522	792
1984-85	143	134	555	5	214	182	209	1,025	1,234
1985-86	180	55	268	9	265	222	197	803	1,000
				Under Construction at End of Year					
1983-84	171	158	1,594	6	376	401	217	2,490	2,706
1984-85	230	87	1,369	2	295	489	228	2,243	2,471
1985-86	423	154	1,495	14	336	499	413	2,509	2,922
				Work Done During Year					
1983-84	137	65	478	6	203	217	198	908	1,106
1984-85	199	87	407	3	190	243	180	949	1,129
1985-86	207	82	408	14	214	247	267	904	1,171
				Work Yet To Be Done					
1983-84	98	70	473	4	148	116	80	829	910
1984-85	101	46	383	2	91	156	119	659	779
1985-86	270	87	375	9	185	145	238	833	1,070

(a) Includes bridges, railways, pipelines, street lighting, and telecommunications structures, and miscellaneous construction.

The value of prime contracts by stage of construction in New South Wales in the last six years is given in the following table.

Value of Prime Contracts by Stage of Construction, N.S.W.
($m)

Year	*Commenced*	*Completed*	*Under construction at end of year*	*Work done during year*	*Work (at end of year) yet to be done*
1980-81	848.6	560.0	1,649.5	804.7	797.7
1981-82	1,273.7	494.9	2,729.6	1,209.3	1,181.8
1982-83	717.9	1,282.2	2,522.3	1,210.7	994.0
1983-84	894.5	792.5	2,706.5	1,105.9	909.7
1984-85	652.6	1,234.4	2,470.9	1,129.0	778.8
1985-86	1,074.5	999.9	2,922.1	1,170.7	1,070.1

A more detailed account of the scope, coverage, and definitions used in construction statistics is given in *Construction (Other than Building) Activity, Australia* (Catalogue No. 8761.0).

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Building Approvals, Australia* (monthly) (Catalogue No. 8731.0); *Building Activity, Australia* (quarterly) (8752.0).
A.B.S. Publications (N.S.W. Office): *Building Approvals, New South Wales (Preliminary)* (monthly) (8730.1); *Buildings Approvals, New South Wales* (monthly) (8731.1); *Building Activity, New South Wales* (quarterly) (8752.1); *Dwelling Unit Commencements Reported by Approving Authorities, New South Wales* (quarterly) (8741.1); *Dwelling Unit Commencements Reported by Approving Authorities, New South Wales (Preliminary)* (monthly) (8740.1).
Other Publications: Annual Reports of the Department of Housing of New South Wales, State Bank of New South Wales, Defence Homes Corporation, Department of Housing and Construction, Housing Loans Insurance Corporation.

16

AGRICULTURE

AGRICULTURAL LAND USE AND SELECTED INPUTS

STATISTICS ON THE AGRICULTURAL INDUSTRY

The statistics relating to agricultural industries, as shown in this Year Book, have been compiled, in the main, from statutory returns supplied annually by occupiers of establishments with agricultural activity in New South Wales.

An *establishment with agricultural activity* is defined, for statistical purposes, as a single physical location which is used for the production of crops (including fruit and vegetables) and/or for the raising of livestock and the production of livestock products. Where two or more locations are within the same local government area, and are worked as one, they are regarded as forming a single establishment.

In recent years the Australian Bureau of Statistics has been excluding from the statistics establishments with agricultural activity whose contribution to agricultural production is small. Generally, establishments with agricultural activity have been excluded from selection for the annual collections if the establishment had an estimated value of agricultural operations of less than a certain "cut-off". For the 1985-86 season, the cut-off level was $2,500. While this has reduced the number of establishments with agricultural activity, the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with smaller scale operations may be affected to a greater extent.

Although an establishment with agricultural activity is a suitable unit for the collection of land use and commodity data, and for the publication of geographic data, it is unsuitable for compiling economic and structural data compatible with those produced for other sectors of the economy. Information, obtained from a special census in 1974, was used to delineate economic units engaged in agricultural activity within a hierarchy of an enterprise group, enterprise, or establishment, and to classify these units according to the Australian Standard Industrial Classification (see Appendix B to Year Book No. 69, 1985, "Integrated Economic Censuses and Surveys"). Further details of agricultural operating units are given later in this division.

AGRICULTURAL DEVELOPMENT

Many factors, apart from the natural characteristics of the land and the obvious effects of natural forces such as floods and droughts, have influenced the pattern of agricultural development in New South Wales. These include improvements to transportation of agricultural products, such as the introduction of refrigerated containers for meat and dairy products, and the bulk handling of grain. Scientific research has increased the productive possibilities of agricultural land. New areas have been developed and existing ones improved by the use of better cultivation methods and fertilisers, mechanisation, the encouragement of improved breeding programs, the control of plant and animal diseases and pests, and the introduction of new varieties of cereals, fruit, and vegetables more suited to local conditions and improved food processing techniques.

Manuscript of this chapter prepared in June 1987.

Trade barriers imposed by major importing countries, the availability of imported products on the local market, and the availability of substitute products have also influenced the pattern of agricultural development. The number of livestock has been influenced by fluctuations in overseas demand for Australian meat. Overseas exports of butter, cheese, and processed milk products have been significantly influenced by import policies of the European Economic Community and the United States of America. As a result of these policies, together with changes in local consumption patterns, the number of establishments with dairy cattle in New South Wales has decreased in recent years. Many of the remaining establishments diversified by introducing beef cattle grazing. Imports of processed agricultural products such as canned mushrooms, orange juice, tomato paste, and vegetable oils have also had a depressing effect on both established and developing industries in New South Wales. Wool production has fluctuated in the last decade partly in response to competition from synthetic cloth fibres, and in this industry some diversification has occurred with many wool producers also sowing crops, including wheat, or switching completely to cropping activities.

State and Australian government policies which have promoted agricultural development include the introduction of stabilisation schemes, price support schemes, establishment of marketing boards, subsidies on fertilisers, duties on imported agricultural products, taxation concessions, contributions to agricultural research, promotion of extension activities, improved transport and communications, and the negotiation of trade treaties and international commodity agreements.

The availability of water has been, and will remain, central to the nature and direction of the State's agricultural development. Over a wide area of New South Wales the rainfall is low and irregular, the rate of evaporation is high, and yet, in these areas, the pattern of rainfall means that flooding can be a serious problem. Consequently in order to contain the damaging effect of drought and floods, control of water resources is most important. The construction of water conservation projects, especially around the Murrumbidgee and Murray Rivers, changed the pattern of agriculture from the grazing of livestock to the sowing of crops, and the controlled use of artesian water has also influenced agricultural development of inland regions. The general control of water resources in New South Wales, including irrigation projects, is described in greater detail in Chapter 13 "Water Resources".

CHARACTER OF SETTLEMENT

The nature and pattern of agricultural settlement in New South Wales have been determined largely by rainfall and the configuration and varying quality of the land, by accessibility to markets, and by local factors such as water supply, forest stands, and means of communication.

Initially, the principal agricultural activity in New South Wales was wool growing, but with the expansion of cereal grain cultivation in the central districts, particularly in the 350-500 millimetre rainfall belt, some contraction of wool growing occurred. The widespread adoption of mixed farming techniques reversed that trend and establishments which combine grazing sheep and growing cereal grains are now common. Increased demand for meat led to even greater diversification. The principal agricultural activities in New South Wales are wool growing, wheat growing, and the raising of cattle for meat production.

AGRICULTURAL ESTABLISHMENTS

Australian Standard Industrial Classification

Establishments and enterprises in the agricultural sector are classified in accordance with the methodology outlined in *Australian Standard Industrial Classification,* (Catalogue No. 1201.0).

Classification of Agricultural Enterprises and Establishments

The Basic economic units referred to in this section are defined as follows: *(a) An agricultural enterprise* is a single operating legal entity which is engaged mainly in agricultural activity. It may also engage in non-agricultural activity in which case all revenue earned from such activity is included in the total revenue of the enterprise. An agricultural enterprise is comparable with enterprise units in other sectors of the economy. These are discussed in Appendix B "Integrated Economic Censuses and Surveys". *(b) An agricultural establishment* is normally part of an agricultural enterprise, and operates at a distinct physical location (or in certain circumstances at more than one location) and is engaged mainly in agricultural activities. Agricultural establishments may engage in non-agricultural activities, and all revenue from such activities is included in the total revenue of the establishment. However, in most cases, the value of non-agricultural operations is an insignificant proportion of their total operations.

An establishment with agricultural activity, as defined at the beginning of this chapter, differs from an agricultural establishment in that agriculture may not necessarily be the main activity.

The following table shows the number of agricultural establishments classified by size and industry class in New South Wales for the 1985-86 season.

Agricultural Establishments by Industry Class, N.S.W.: Estimated Value of Operations, 1985-86

Industry class	*A.S.I.C. code no. (a)*	*Establishments with an estimated value of operations of —*				*Total establishments*
		Under $10,000(b)	*$10,000 to $29,999*	*$30,000 to $74,999*	*$75,000 or more*	
Poultry —						
For meat	0124	9	17	86	195	307
For eggs	0125	14	30	28	238	310
Fruit —						
Grapes	0134	90	131	295	247	763
Plantation fruit	0135	64	272	416	182	934
Orchard and other fruit	0136	362	546	567	658	2,133
Vegetables —						
Potatoes	0143	8	21	49	98	176
Other	0144	165	251	240	256	912
Cereal grains, sheep, cattle and pigs —						
Cereal grains (incl. oilseeds n.e.c.)	0181	157	373	918	2,694	4,142
Sheep and cereal grains	0182	68	465	2,370	5,891	8,794
Meat cattle and cereal grains	0183	84	276	509	706	1,575
Sheep and meat cattle	0184	383	876	1,328	1,401	3,988
Sheep	0185	1,112	2,049	2,639	2,614	8,414
Meat cattle	0186	4,486	4,219	1,916	675	11,296
Milk cattle	0187	41	149	1,087	1,564	2,841
Pigs	0188	105	144	215	292	756
Other agriculture —						
Sugar cane	0191	20	153	218	98	489
Tobacco	0193	—	—	—	23	23
Cotton	0194	—	1	2	282	285
Nurseries *(c)*	0195	59	186	244	325	814
Agriculture, n.e.c. *(d)*	0196	1,208	867	471	230	2,776
Total, agriculture		**8,435**	**11,026**	**13,598**	**18,669**	**51,728**

(a) As defined in the "Australian Standard Industrial Classification" 1983 Edition. *(b)* Establishments were not tabulated if they, or the associated enterprises, had an estimated value of agricultural operations of less than $2,500. *(c)* Except forest nurseries. *(d)* Includes peanuts (A.S.I.C. code no. 0192).

In 1985-86, there was a total of 52,116 establishments with an estimated value of agricultural operations greater than $2,500. Of these, 51,728 were classified as agricultural establishments (see above table), and 330 as other industry establishments.

ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY

Number and Area of Establishments

Variations in the scope of the agricultural census, as outlined in the introduction to this section, have resulted in the exclusion of establishments with agricultural activity whose contribution to production is small.

The number and area of establishments with agricultural activity in Statistical Divisions at 31 March, for the last three years, are given in the following table.

Number and Area of Establishments *(a)* in Statistical Divisions (At 31 March)

Statistical division	*Number of establishments*			*Area of establishments ('000 hectares)*		
	1984	*1985*	*1986*	*1984*	*1985*	*1986*
Sydney	3,298	3,126	2,978	146	134	139
Hunter	3,896	3,788	3,811	1,690	1,659	1,664
Illawarra	1,319	1,302	1,301	184	177	172
Richmond-Tweed	4,461	4,252	4,192	599	589	584
Mid-North Coast	4,787	4,666	4,618	1,345	1,320	1,290
Northern	8,090	7,953	7,941	7,682	7,641	7,617
North Western	5,407	5,286	5,227	17,307	17,242	17,148
Central West	6,958	6,916	6,854	5,067	5,155	5,120
South Eastern	5,470	5,453	5,428	3,069	3,044	3,005
Murrumbidgee	5,603	5,514	5,542	5,644	5,669	5,556
Murray	4,750	4,666	4,636	8,140	8,099	8,137
Far West	368	360	347	13,082	12,959	12,898
Total, N.S.W.	54,407	53,282	52,875	63,957	63,687	63,330

(a) Establishments with agricultural activity.

The classification of establishments with agricultural activity by area at 31 March 1986 is summarised in the following table.

Number of Establishments *(a)* Classified by Area in Statistical Divisions, at 31 March 1986

Area (hectares)	*Sydney statistical division*	*Hunter statistical division*	*Illawarra statistical division*	*Richmond-Tweed statistical division*	*Mid-North Coast statistical division*	*Northern statistical division*
0- 19 *(b)*	2,004	380	209	648	824	294
20- 49	473	411	265	862	804	326
50- 99	210	491	327	1,141	857	459
100- 249	186	1,012	352	1,051	1,153	1,027
250- 499	70	646	101	323	458	1,412
500- 749	17	313	23	88	188	1,171
750- 999	7	172	12	30	95	801
1,000- 1,999	9	255	7	34	141	1,573
2,000- 4,999	1	127	5	13	91	854
5,000-19,999	1	2	—	2	4	19
20,000 or more	—	2	—	—	3	5
Total establishments *(a)*	**2,978**	**3,811**	**1,301**	**4,192**	**4,618**	**7,941**

Area (hectares)	*North-Western statistical division*	*Central West statistical division*	*South Eastern statistical division*	*Murrumbidgee statistical division*	*Murray statistical division*	*Far West statistical division*	*Total, New South Wales*
0- 19 *(b)*	165	291	276	542	463	5	6,102
20- 49	175	384	334	505	264	5	4,808
50- 99	169	465	496	228	243	2	5,088
100- 249	317	1,110	1,196	783	757	1	8,945
250- 499	675	1,449	1,233	1,211	1,099	—	8,677
500- 749	695	989	672	806	547	1	5,510
750- 999	446	633	421	444	311	—	3,372
1,000- 1,999	1,039	1,051	575	570	439	2	5,695
2,000- 4,999	1,097	465	222	372	297	8	3,552
5,000-19,999	262	15	2	45	119	41	512
20,000 or more	187	2	1	36	97	281	614
Total establishments *(a)*	**5,227**	**6,854**	**5,428**	**5,542**	**4,636**	**346**	**52,875**

(a) Establishments with agricultural activity. *(b)* Includes migratory beekeepers without land.

Land Use on Establishments with Agricultural Activity

Land use on establishments with agricultural activity in New South Wales during the past 6 seasons is given in the following table.

Land Use on Establishments *(a)*, N.S.W.

Item	*Unit of quantity*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Establishments *(a)* at 31 March —							
Number	Number	56,798	53,712	54,995	54,407	53,282	52,875
Total area	'000 hectares	65,167	63,424	64,000	63,957	63,687	63,330
Land use *(b)* —							
Crops —							
Wheat for grain	'000 hectares	3,345	3,600	3,162	3,999	3,603	3,663
Total area used for cropping *(c)*	'000 hectares	5,351	5,993	5,307	6,942	5,963	6,195
Sown grasses and clovers *(d)*	'000 hectares	5,003	4,723	4,576	4,379	5,142	5,440
Native pasture	'000 hectares	13,744	13,096	13,712	13,218	14,165	13,174

(a) Establishments with agricultural activity. *(b)* Excludes fallow land, natural bush, scrub, and forest wetlands etc. *(c)* Includes lucerne, pastures, and grasses cut for hay, green feed or silage and harvested for seed. Prior to 1981-82, excludes duplication of area double cropped. *(d)* Excludes pure lucerne, native grass and naturalised paspalum. Includes sown grasses and clovers oversown with crops during the year.

The following table shows the land use on establishments with agricultural activity in Statistical Divisions of New South Wales in the 1985-86 season.

Land Use on Establishments *(a)* in Statistical Divisions, 1985-86 ('000 hectares)

Statistical divisions	*Total area at 30 June 1986 (b)*	*Total area of establishments (a) at 31 March 1986*	*Land use(c)*			
			Crops		*Sown grasses and clovers(e)*	*Native pasture*
			Wheat for grain	*Total area used for cropping(d)*		
Sydney	12,407	139	—	15	20	29
Hunter	31,010	1,664	44	115	197	434
Illawarra	8,485	172	—	11	66	33
Richmond-Tweed	9,757	584	1	35	54	139
Mid-North Coast	25,933	1,290	—	30	151	369
Northern	98,606	7,617	805	1,516	867	1,925
North Western	199,077	17,148	864	1,237	376	3,468
Central West	63,262	5,120	839	1,244	1,033	923
South Eastern	52,136	3,005	90	185	1,101	766
Murrumbidgee	63,522	5,556	619	1,068	862	1,249
Murray	90,003	8,137	392	719	714	1,935
Far West	147,142	12,898	8	18	—	1,904
Total, N.S.W.	**801,341**	**63,330**	**3,663**	**6,195**	**5,440**	**13,174**

(a) Establishments with agricultural activity. *(b)* Excludes 8,709 hectares, comprising Lord Howe Island, and harbours, rivers, etc., not included within municipal and shire boundaries. *(c)* Excludes fallow land, natural bush, scrub, and forest wetlands etc. *(d)* Includes lucerne, pastures and grasses cut for hay, green feed or silage, and harvested for seed. For double-cropped areas, the area is included for each time it is cropped. *(e)* Excludes pure lucerne, native grass and naturalised paspalum. Includes sown grasses and clovers oversown with crops during the year.

Tenure of Land Used for Agricultural Purposes

The tenure of land used for agricultural purposes in New South Wales is principally either freehold or leasehold from the Crown. Except in Upper Darling and Murray-Darling Statistical Subdivisions and the Far West Statistical Division, where almost all the land is held under perpetual or long-term lease from the Crown, most land used for agricultural purposes falls into the category of "alienated or virtually alienated". For further information on land tenure see Chapter 11 "Land Use".

AGRICULTURAL FINANCIAL STATISTICS

Two sets of agricultural financial data are compiled for statistical purposes. The different methods used are briefly explained below.

Value of Agricultural Commodities Produced

The first series comprises the "Value of Agricultural Commodities Produced". Estimates are calculated using commodity data, mainly from the annual Agricultural Census, and prices obtained from a variety of sources connected with the marketing of agricultural commodities. These estimates are intended to indicate for establishments with agricultural activity the *value of agricultural commodities produced in a particular season* irrespective of whether or not they have been sold, retained, or are subject to finalisation of payment beyond the period specified.

The *gross value of agricultural commodities produced* is the value placed on recorded production at wholesale price(s) realised in the market place. The *local value of agricultural commodities produced* is derived by deducting marketing costs from the gross value of agricultural commodities produced. The following table shows the value of agricultural commodities produced by the type of commodity.

Values of Agricultural Commodities Produced, N.S.W.
($'000)

Item	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Gross value			
Crops	1,267,680	1,834,789	1,022,607	2,664,839	r2,167,710	2,165,772
Livestock slaughterings and other disposals	1,005,209	845,123	976,324	879,515	962,492	1,071,563
Livestock products	801,160	921,129	954,641	1,050,423	1,209,472	1,289,160
Total	**3,074,048**	**3,601,042**	**2,953,572**	**4,594,777**	**r4,339,673**	**4,526,495**
			Local value			
Crops	1,107,843	1,516,846	878,476	2,175,891	r1,782,847	1,785,980
Livestock slaughterings and other disposals	939,226	783,827	899,974	815,626	892,799	986,734
Livestock products	745,429	856,814	889,153	999,844	1,141,502	1,218,857
Total	**2,792,498**	**3,157,486**	**2,667,604**	**3,991,361**	**r3,817,147**	**3,991,570**

Further details of the value of agricultural commodities produced are given later in this chapter. Regional values of agricultural commodities produced are available in *Value of Agricultural Commodities Produced New South Wales* (Catalogue No. 7501.1).

Financial Aggregates of Agricultural Enterprises

The second series comprises data obtained from the Agricultural Finance Survey. Aggregates from this survey provide estimates of the financial performance of *agricultural enterprises in respect of a financial year.* For the years 1968-69 to 1977-78 the Survey was conducted annually, a break in this series then occurred until the latest survey, conducted in respect of the 1980-81 financial year. The statistical reporting unit, the agricultural enterprise, is described earlier in this subsection and the standardised data items used in this Survey are described in Appendix B "Integrated Economic Censuses and Surveys" in the 1985 issue of the Year Book (No. 69). Estimates are derived for various items including turnover, purchases and selected expenses, value added, cash operating surplus, capital expenditure, gross indebtedness, and net worth. More comprehensive estimates, and an explanation of the data items, terms used, accuracy of estimates, etc., are included in the bulletin *Agricultural Industries: Financial Statistics, Australia* (Catalogue No. 7507.0).

Agricultural Enterprises: Financial Aggregates, New South Wales
$m

					1980-81	
Items	*1974-75*	*1975-76*	*1976-77*	*1977-78*	*N.S.W.*	*Australia*
Sales of crops	594.6	634.2	788.2	658.5	1,048.8	4,543.7
Sales of livestock	339.8	357.4	452.2	568.6	989.2	3,134.6
Sales of livestock products	394.6	440.7	507.9	499.4	667.1	2,422.2
Turnover *(a)*	1,361.3	1,463.3	1,799.0	1,797.9	*(d)*2,798.3	10,439.7
Purchases and selected expenses	637.9	761.2	818.0	866.7	*(d)*1,570.3	5,283.5
Value added *(b)*	763.7	708.6	948.6	863.9	*(d)*1,136.8	5,034.9
Adjusted value added *(b)*	661.3	577.5	818.7	727.7	*(d)*961.6	4,471.7
Gross operating surplus *(b)*	506.8	424.9	671.3	543.9	*(d)*750.7	3,669.1
Cash operating surplus *(c)*	390.4	356.3	630.8	534.7	*(d)*733.4	3,419.1
Total net capital expenditure	152.3	208.4	244.4	217.1	312.8	1,301.3
Gross indebtedness	825.9	1,013.9	974.5	1,002.7	1,320.7	4,941.0

(a) Includes miscellaneous turnover. *(b)* Includes an estimate for the value of the increase in livestock. *(c)* Excludes an estimate for the value of the increase in livestock. *(d)* Not strictly comparable with previous years. In 1980-81 includes revenue and/or expenditure for leasing assets (other than land).

EMPLOYMENT IN THE AGRICULTURAL INDUSTRY

Data collected on the annual agricultural census returns until 1975-76, showed that the number of persons permanently engaged on establishments with agricultural activity in New South Wales at 31 March had declined over most of the post-war years and that this trend accelerated after 1970. These data may be found in Year Book No. 64 in the chapter "Rural Industries".

Employment in agriculture is estimated at the time of the periodic censuses of housing and population. At the Census held on 30 June 1981, 73,394 males and 30,513 females, representing 4.7 per cent of the employed population, were classified as being employed in agriculture.

Quarterly estimates of persons employed in agriculture are also available from the Labour Force Survey. The definitions, scope, and comparability over time of Labour Force Survey data are discussed in Chapter 10 "Labour". Recent estimations of the workforce employed in agriculture are shown in the next table.

Persons Employed in Agriculture and Services to Agriculture, N.S.W. ('000)

	Full-time			*Total(a)*		
Month and Year	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
February 1982	75.3	12.9	88.2	79.0	26.9	105.9
February 1983	78.0	12.6	90.6	83.9	26.4	110.3
February 1984	87.0	14.6	101.6	92.4	28.6	121.0
February 1985	74.4	13.1	87.6	82.1	27.1	109.2
February 1986	80.3	14.8	95.1	84.2	31.8	115.9
May 1986	75.7	14.7	90.3	84.1	35.2	119.3
August 1986	66.3	13.9	80.2	71.0	29.6	100.6
November 1986	75.0	14.7	89.8	80.3	30.5	110.9
February 1987	72.1	13.7	85.8	79.1	33.9	113.1

(a) Subtracting full-time from total persons employed will not reflect accurate part-time figures, due to sampling variability.

Conditions of Agricultural Employment

The State Pastoral Employees Award and the Commonwealth Pastoral Award have since 1954 and 1965 respectively, covered the employment of station hands engaged in the management, rearing, or grazing of livestock (other than pigs), the sowing, raising, or harvesting of crops, or the preparation of land for any of the above purposes, and shearers and station hands engaged in sheep grazing.

Other State awards cover most phases of agricultural employment not covered by the State and Commonwealth Pastoral Industry Awards. The following table shows the rates of wages prescribed in recent years for selected occupations covered by the principal awards.

Adult Wage Rates for Selected Agricultural Occupations, N.S.W. (*Source*: Commonwealth Department of Employment and Industrial Relations and New South Wales Department of Industrial Relations) ($ per week)

Award	*Occupation*	*1982*	*1983*	*1984*	*1985*	*1986*
Commonwealth Pastoral Award *(a)*	Shearers-rate per 100 ordinary flock sheep	90.48	90.48	97.07	100.87	106.89
	Shed hands —					
	With keep	229.70	229.70	238.47	260.85	276.47
	Without keep	273.40	273.40	283.30	307.90	326.20
Station hands —						
	With keep	154.00	154.00	159.05	176.00	182.66
	Without keep	192.50	192.50	200.80	220.00	229.40
State Awards *(b)* —						
Horticultural	General hand *(c)*	198.80	220.40	229.40	244.30	249.90
Sugar field workers	Field workers *(d)*	194.00	202.30	210.60	224.30	229.50
Citrus, apple, and pear growing	General hand *(e)*	191.70	212.60	221.30	235.70	241.10
Potato growers	General hand	191.70	212.60	221.30	235.70	241.10
Dairying	General hand *(f)*	198.80	216.40	225.30	240.00	245.50

(a) At 30 September. *(b)* At 1 July. *(c)* With at least 12 months experience. *(d)* Over 19 years of age. *(e)* Class 1 general hand (i.e. one who is a picker or does general work). *(f)* Class 2 general hand (i.e. one who drives tractors etc. in addition to general farm work).

Agricultural Workers' Accommodation

Under the provisions of the Rural Workers Accommodation Act 1969, employers of labour are required to provide for employees, who are engaged for more than 24 hours and who are required by the terms of their employment to live on the premises, accommodation of a prescribed standard. Unless otherwise provided by an industrial award, no charge is made for the accommodation and facilities. The Act also specifies the facilities to be provided for non-resident workers.

Sharefarming

The system of sharefarming was introduced in New South Wales towards the end of the last century. Under the system, the owner provides suitable land (usually requiring the land to be operated for a specified purpose and a fixed time period), the sharefarmer provides the necessary labour, and the manner in which other costs are to be borne by owner and sharefarmer is specified in the particular agreement. Arrangements are made for the sharing of farm proceeds between owner and sharefarmer in certain agreed proportions. These arrangements, and the arrangements made for meeting costs other than labour costs, vary according to the relative contributions made by the owner and the sharefarmer and according to the industry and area of the State involved. In dairy sharefarming, a common type of arrangement provides for the owner to supply all livestock and equipment and to pay all maintenance costs and half the running costs of the farm, and for the farm proceeds to be divided equally between the owner and the sharefarmer. However, the practice of sharefarming continues to decline in dairying due primarily to the decrease in the number and viability of small dairy farms. In wheat sharefarming the division of proceeds between the sharefarmer and the owner is traditionally based upon the share of expenses met by each.

Agricultural Holdings Act 1941

The majority of tenancies of agricultural land in New South Wales are tenancies at will or yearly tenancies, and many areas are worked for cultivation or dairying under sharefarming agreements. Insecurity of tenure leads to the impairment of the productive resources of the land by discouraging good husbandry and improvements.

The Agricultural Holdings Act applies to tenancies of agricultural holdings of not less than 8,000 square metres, including tenancies at will and those under sharefarming agreements. The minimum tenancy under the Act is two years, and at least twelve months' notice, to expire at the end of the lease year, must be given for the termination of a tenancy. The Act also defines rights to compensation for improvements (including those attributable to a better system of farming than required under the contract) and for disturbance of a tenancy.

Agricultural committees, with representatives of the N.S.W. Department of Agriculture, landlords and tenants, are appointed under the Act when required to determine references and matters in dispute.

SERVICES BY GOVERNMENT AUTHORITIES TO THE AGRICULTURAL INDUSTRY

New South Wales Department of Agriculture

The New South Wales Department of Agriculture is the State authority responsible for agricultural industries in general. The Department administers policy and Acts of Parliament relating to agriculture and seeks to safeguard and improve agricultural productivity and to ensure the marketing of safe produce. Its functions include dissemination of technical and management information; enforcement of statutory requirements for the control and eradication of animal and crop diseases, and for ensuring standards of quality and of conduct in activities associated with agriculture; conduct of agricultural research and provision of resultant information; and provision of tertiary agricultural education. It is responsible for the Orange, C.B. Alexander, and Murrumbidgee Agricultural Colleges.

Provision of research, advisory and veterinary services is structured around five agricultural regions, with headquarters at Dubbo, Gunnedah, Leeton, Lismore, and Orange. The Biological and Chemical Research Institute at Rydalmere researches agricultural biology (plant pathology and bacteriology), chemistry and entomology matters.

The head office consists of the following divisions:

Agricultural Services. Provision of technical and professional services, including agricultural engineering; pesticides registration; pesticides and environmental studies; administration of the Department's library; assistance to agricultural groups through the Group Activities Unit at Cowra (e.g. Agricultural Bureau and Rural Youth); co-ordination of formal education programs; provision of biometrical services.

Animal Health. Investigation and control of animal diseases; veterinary research; administration of the Quarantine Act in respect of import and export of animals and import of animal products.

Animal Production. Livestock production advice, research and regulations; scientific and technical innovation promotion; drought relief; registration of brands and stockfoods; pastures protection.

Marketing and Economic Services. Administration of the Marketing of Primary Products Act and the various State marketing boards; collection and dissemination of general information relating to production and marketing of agricultural products; provision of marketing advisory services; primary products promotion; reporting of livestock and farm produce markets; farm business management; research into agricultural economics, farm management, and marketing.

Plant Industries. Provision of advisory, research and regulatory services in connection with pastures, field crops, and horticultural (including fruit and vegetables) crops; licensing of potato growers, nurserymen, and resellers of nursery stock; plant quarantine; export of agricultural commodities.

State Fisheries. Regulates New South Wales fisheries and provides research and advisory services to commercial fishermen, oyster farmers and anglers.

Soil conservation, water conservation and irrigation, and forestry are the responsibility of three organisations: the Soil Conservation Service, the Department of Water Resources, and the Forestry Commission.

Other Government Authorities

The Commonwealth Department of Trade is responsible for the negotiation and administration of international trade and commodity agreements, for trade promotion, and for the provision of advice to the Government on the formulation of trade policies.

The Commonwealth Department of Primary Industry is responsible for advising the Minister for Primary Industry on agricultural policies within the constitutional responsibilities of the Commonwealth Government. It administers related Commonwealth programs and legislation, including various stabilisation and equalisation schemes, rural industry research funds and grants to the States. The Department co-operates with the Department of Trade in the negotiation of international trade and commodity agreements, in participation in international conferences, and in the administration of provisions relating to agricultural products in existing international agreements. It also administers the legislation under which Commonwealth statutory marketing authorities operate, and maintains contact with these bodies on marketing policy matters. Through the Australian Quarantine and Inspection Service the Department is responsible for the inspection and certification of agricultural products intended for export and for the establishment of standards for the composition, quality, packaging, and labelling of foodstuffs exported. The Service also administers Commonwealth quarantine measures under the *Quarantine Act 1908*, in co-operation with the Australian Customs Service and State agricultural departments. The Bureau of Agricultural Economics, an independent research organisation within the Department, carries out research into aspects of agriculture that are significant in determining the economic performance of producers and agriculture generally.

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is an autonomous statutory authority established under the *Science and Industry Research Act 1949*. It maintains, throughout Australia, regional laboratories and field stations where research into agronomic and livestock problems is undertaken, and conducts research into the potentialities and processing of Australian agricultural products.

The Australian Agricultural Council, which consists of the relevant Commonwealth and State Government ministers, enables the development of Australia-wide agricultural policies which are consistent with the objectives of Commonwealth and State Governments and developments in domestic and overseas markets.

CROPS AND PASTURES

Until the end of the nineteenth century the area sown to crops in New South Wales was minimal, with the resultant production barely sufficient for local needs. Settlement became more extensive with the spread of railways and the enactment of land legislation, and after 1897, when the export trade commenced, wheatgrowing expanded rapidly. The area of other crops cultivated has undergone a similar expansion with its proportion of the total area devoted to cropping in 1985-86, still comparable to its proportion at the turn of the century.

Improved pastures in New South Wales, mainly on the coast, tableland and slopes support a large number of sheep and cattle, and legume-based leys provide nitrogen for crops grown in rotation.

AREA OF ALL CROPS

The following table shows the area of crops in New South Wales in quinquennial periods since 1891. The definition of the term "crop" has varied over the period covered in the table. However, the effects of these variations are not considered to be significant, given that the data in the table are averages for five seasons.

Area *(a)* of All Crops and of Wheat in N.S.W.
('000 hectares)

Seasons	*Average area of all crops*	*Average area of wheat for grain*	*Seasons*	*Average area of all crops*	*Average area of wheat for grain*
1891-1895	425	193	*1941-1945*	2,221	1,375
1896-1901	767	421	*1946-1950*	2,521	1,727
1901-1905	986	610	*1951-1955*	2,033	1,219
1906-1910	1,143	694	*1956-1960*	2,221	1,138
1911-1915	1,629	1,029	*1961-1965*	3,484	1,967
1916-1920	1,868	1,231	*1966-1970*	5,119	3,117
1921-1925	1,888	1,276	*1971-1975*	4,814	2,558
1926-1930	2,029	1,406	*1976-1980*	5,017	3,169
1931-1935	2,446	1,789	*1981-1985*	5,911	3,542
1936-1940	2,555	1,726			

(a) Since 1940-41 areas of land used for sowing more than one crop in a season have been counted for each crop.

NUMBER OF ESTABLISHMENTS GROWING CROPS

The number of establishments reporting an area under cultivation in recent seasons, and the number of establishments reporting cultivation of selected crops, are shown in the following table.

Number of Establishments Growing Selected Crops, N.S.W.

Crop	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Establishments *(a)* growing —						
Cereals —						
Wheat	16,373	16,361	15,063	16,348	15,564	15,178
Maize	1,085	988	n.a.	862	913	746
Barley	7,357	7,930	6,378	7,712	7,374	7,052
Oats	16,429	18,749	16,715	19,055	13,410	15,152
Rice	1,567	1,653	1,448	1,626	1,620	1,504
Oilseeds —						
Sunflower	382	376	493	601	980	906
Rapeseed	194	93	94	193	279	634
Linseed	33	23	27	30	31	74
Safflower	84	141	49	138	116	71
Soybeans	178	280	308	363	578	686
Fruit —						
Bananas	1,117	1,076	1,141	1,117	1,039	1,000
Grapes	1,241	1,216	1,226	1,160	1,131	1,192
Orchard fruit	3,100	3,012	3,166	3,118	3,058	3,122
Other crops —						
Cotton	130	158	223	275	341	332
Potatoes	582	527	565	531	459	386
Sugarcane (cut for crushing)	527	525	548	552	541	523
Tobacco	68	57	51	47	31	23
Cultivated establishments *(b)*	**34,765**	**33,593**	**32,972**	**33,281**	**30,745**	**30,541**

(a) Establishments growing more than one of the crops shown in the table are counted for each crop. *(b)* Establishments with more than one crop under cultivation are counted once only.

STATISTICAL SUMMARY OF CROPS GROWN

In past years, totals for some items derived from the Agricultural Census have been adjusted, where it was considered that the data were deficient because of problems of scope, coverage, reporting difficulties or non-response, by taking into account data from marketing authorities or other sources. From the 1980-81 Census, this practice ceased with the exception of data in respect of wheat and wool (and corresponding sheep items). This revised treatment has only a marginal effect on year-to-year comparisons of data. Where the revised treatment has affected time series, specific footnotes have been included.

The area, production and average yield per hectare of crops grown in New South Wales in 1984-85 and 1985-86 are shown in the following table.

Area and Production of all Crops, N.S.W.

	1984-85			*1985-86*		
Crop	*Area(a) (hectares)*	*Production (tonnes)*	*Average yield per hectare(b) (tonnes)*	*Area(a) (hectares)*	*Production (tonnes)*	*Average yield per hectare(b) (tonnes)*
Cereals for grain —						
Wheat	3,602,630	5,804,702	1.61	3,662,593	5,915,526	1.62
Oats	311,687	401,787	1.29	429,070	538,324	1.25
Barley	604,815	914,974	1.51	546,224	821,394	1.50
Maize	19,284	74,183	3.85	18,212	90,085	4.95
Sorghum	205,896	318,587	1.55	160,076	299,266	1.87
Rice	117,780	845,119	7.18	102,994	702,073	6.82
Other	79,618	..	..	85,557	..	..
Crops for hay —						
Wheat	13,440	39,008	2.90	15,708	48,566	3.09
Oats	21,591	56,500	2.62	27,313	76,767	2.81
Other	2,301	3,482	1.51	2,625	5,991	2.28
Green fodder *(c)*	328,237	..	..	422,675	..	..
Sugarcane (cut for crushing)	14,869	1,540,456	103.60	15,341	1,398,183	91.14
Cotton	131,237	*(d)*534,039	*(d)*4.07	135,820	*(d)*541,751	*(d)*3.99
Oilseeds —						
Linseed	1,617	1,088	0.67	4,286	3,452	0.81
Sunflower	145,405	115,085	0.80	112,894	98,869	0.88
Soybeans	24,789	44,990	1.81	32,245	51,392	1.59
Rapeseed	15,551	16,307	1.05	39,776	46,165	1.16
Safflower	14,369	7,495	0.52	17,908	8,201	0.46
Tobacco	344	*(e)*720	*(e)*2.09	233	*(e)*477	*(e)*2.05
Fruit —						
Orchard fruit	*(f)(g)*29,208	..	..	*(f)(g)*30,884	..	..
Bananas	*(f)*5,245	62,665	13.31	*(f)*5,164	60,867	11.79
Grapes	*(f)*12,778	179,735	14.86	*(f)*13,161	199,346	15.15
Vegetables for human consumption —						
Potatoes	6,601	109,258	16.55	5,910	108,568	18.37
Other	15,093	..	..	15,343	..	..
Other crops	64,761	..	..	87,583		
Total (c)	*5,789,146*	..	..	*5,989,595*	..	..
Lucerne, pastures, and grasses —						
Cut for hay —						
Lucerne	64,691	310,726	4.80	68,933	336,230	4.88
Other	83,289	241,470	2.90	110,888	322,036	2.90
Harvested for seed —						
Lucerne	4,042	357,228	88.38	3,658	412,603	112.79
Other	9,602	..	..	8,865	..	..
Cut for green feed or silage —						
Lucerne	3,687	..	..	4,975	..	..
Other	8,582	..	..	8,346	..	..
Total, area of crops	**5,963,039**	..	..	**6,195,260**	..	..

(a) Areas of land used for sowing more than one crop in a season have been counted for each crop. *(b)* Land under crops which failed is reckoned in the average. *(c)* Excludes lucerne, pastures, and grasses. *(d)* Seed cotton. *(e)* Cured leaf. *(f)* Bearing and not yet bearing. *(g)* Includes olives and edible nuts.

VALUE OF AGRICULTURAL COMMODITIES PRODUCED, CROPS

Two measures of the value of crop production are calculated for statistical purposes. The *gross value of crops* produced is the value placed on recorded production at the wholesale prices realised in the market place. The *local value of crops* produced is the value placed on recorded production at the place of production. Local value is calculated by deducting marketing costs (the cost of moving the agricultural product from the place of production to the market place, such as freight, packaging, commission, insurance, storage etc.) from the gross value of crops produced. The following table shows the local and gross value of crops produced in New South Wales in the past six seasons.

Gross and Local Values of Agricultural Commodities Produced, Crops, N.S.W. ($'000)

Value	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Gross value of crops produced	1,267,680	1,834,789	1,022,607	2,664,839	2,165,772	r2,167,710
Marketing costs	159,837	317,943	144,131	488,948	379,792	r384,863
Local value of crops produced	1,107,843	1,516,846	878,476	2,175,891	1,785,980	r1,782,847

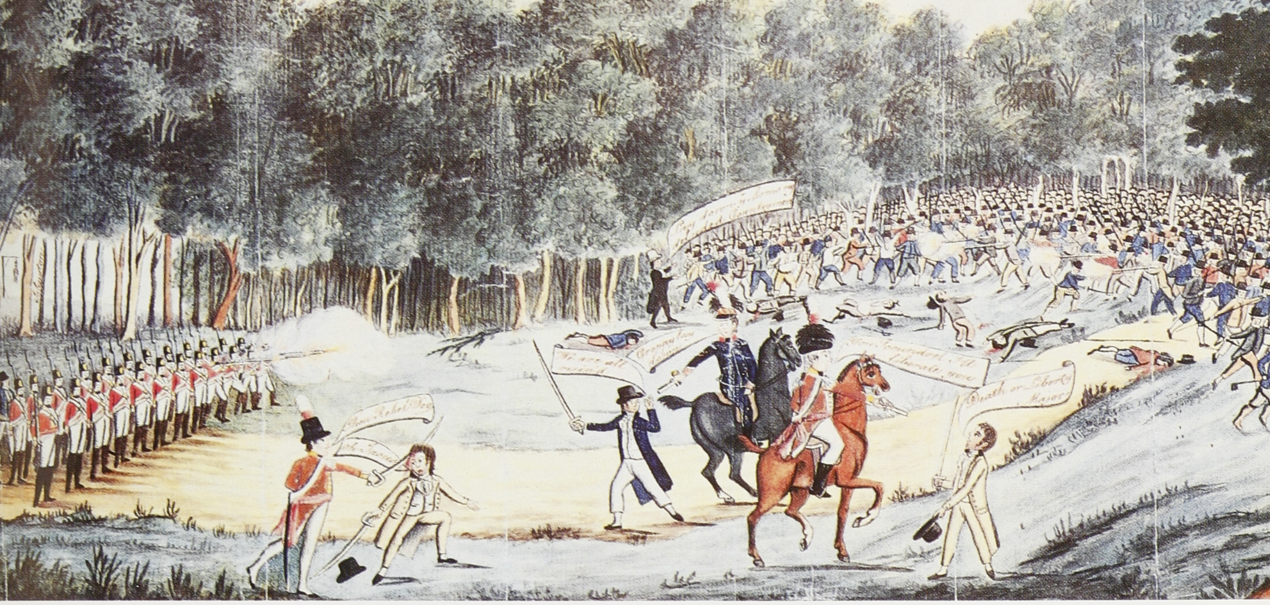
The following table shows the local value of all crops produced in the last six seasons.

Local Value of Agricultural Commodities Produced, Crops, N.S.W. ($'000)

Crop	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Cereals for grain —						
Wheat	364,681	743,602	221,157	1,137,829	r764,426	750,234
Oats	38,372	58,057	18,363	71,935	29,576	42,168
Barley	49,400	78,055	23,135	97,768	66,226	64,642
Maize	5,892	6,439	7,235	7,182	7,567	9,369
Sorghum	15,367	25,241	25,584	56,800	34,757	27,553
Rice	126,769	90,876	76,058	76,080	114,402	77,541
Other	2,355	7,611	8,719	15,876	13,218	17,795
Crops for hay —						
Wheat	7,375	3,849	5,103	5,193	2,403	3,252
Oats	8,447	12,571	5,566	12,871	3,208	5,566
Other	924	588	851	666	251	389
Sugarcane (cut for crushing)	40,530	20,569	26,138	25,330	26,448	23,199
Cotton *(a)*	105,450	131,365	106,746	200,724	261,295	265,629
Oilseeds —						
Linseed	323	148	105	318	323	1,036
Sunflower	4,427	5,574	6,648	15,592	30,389	21,318
Soybeans	5,816	5,937	3,751	8,246	13,921	12,556
Rapeseed	1,155	562	472	2,123	4,387	11,573
Safflower	544	2,162	789	1,359	1,645	1,632
Tobacco	3,749	3,331	3,725	3,856	3,214	2,252
Fruit —						
Pome *(b)*	25,325	23,466	18,969	28,240	32,175	19,016
Stone *(c)*	16,452	16,262	13,831	16,172	18,367	24,338
Citrus —						
Oranges	28,488	28,875	36,868	34,391	47,107	43,205
Other	6,013	5,553	5,975	6,146	7,354	6,896
Bananas	24,929	19,439	22,720	27,471	32,475	39,071
Grapes	39,245	32,435	33,069	37,892	47,559	51,628
Other	4,551	5,572	7,158	7,927	13,526	12,060
Vegetables for human consumption —						
Potatoes	15,950	13,535	15,310	39,741	14,024	23,994
Mushrooms	10,343	10,486	12,270	11,841	14,520	12,294
Tomatoes	8,303	10,860	8,480	12,650	10,295	8,517
Other	43,993	37,872	32,430	45,520	39,344	46,811
Other crops*(d)*	49,744	49,075	66,408	62,738	79,704	92,134
Total (e)	*1,054,912*	*1,449,969*	*813,635*	*2,070,476*	*r1,734,105*	*1,717,644*
Lucerne, pastures and grasses —						
Cut for hay —						
Lucerne	27,498	31,006	41,792	39,904	28,960	38,196
Other	22,988	32,191	20,217	61,558	16,186	25,956
Other	2,445	3,680	2,832	3,953	3,596	4,183
Total, value of crops	**1,107,843**	**1,516,846**	**878,476**	**2,175,891**	**r1,782,847**	**1,785,980**

(a) Seed cotton. *(b)* Includes apples, pears, and quinces. *(c)* Includes apricots, cherries, nectarines, peaches, plums, and prunes. *(d)* Includes nursery products. *(e)* Total all crops excluding lucerne, pastures, and grasses.

The next table shows for recent seasons the average local value of selected crops per hectare and per tonne produced. These average values per hectare measure the effect from year to year of the yield obtained and the prices realised, that is, the combined effect of season and market on the average returns obtained by farmers. The average values per tonne reflect the market prices in each of the seasons shown.



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Quelling of the Irish Uprising (artist unknown). On the night of 5 March 1804, a well-armed band of about 266 Irish convicts and sympathisers planned a full-scale revolt. The Government knew of their intentions, however, and Major George Johnston and twenty-six men from the New South Wales Corps came upon the insurgents at Vinegar Hill, about seven miles from Toongabbie. The painting shows the mounted figures of Major Johnston (red-coated) and a trooper levelling pistols at the respective heads of Philip Cunningham (main leader) and William Johnston (second leader). Quarter-Master Laycock, who is challenging a rebel to a swordfight at their left, subsequently advanced with the military detachment and the rioters rapidly dispersed. There were twelve dead and many wounded in the conflict, and nine ringleaders were hanged. The rebellion was the last to occur on a large scale in the ensuing sixty years of convict transportation.

H.M.S. "Warspite", 1826 (with Fort Macquarie on the left), from Augustus Earle's "Views in Australia", Sydney, 1826. Until 1887, the naval defence of the colony was entirely a matter of British Imperial concern. British warships stationed in Sydney till the 1850's were part of the East Indies Station under the commander-in-chief in India. The "Warspite" was the first "ship of the line" 74-gun battleship ever to enter an Australian port and it was accompanied by the Commander-in-Chief of the East Indies station, Commodore Sir James Brisbane. During the "Warspite's" stay in Sydney, Sir James died and was accorded a full naval funeral. A plaque in his memory is contained in St. James Church, Sydney.

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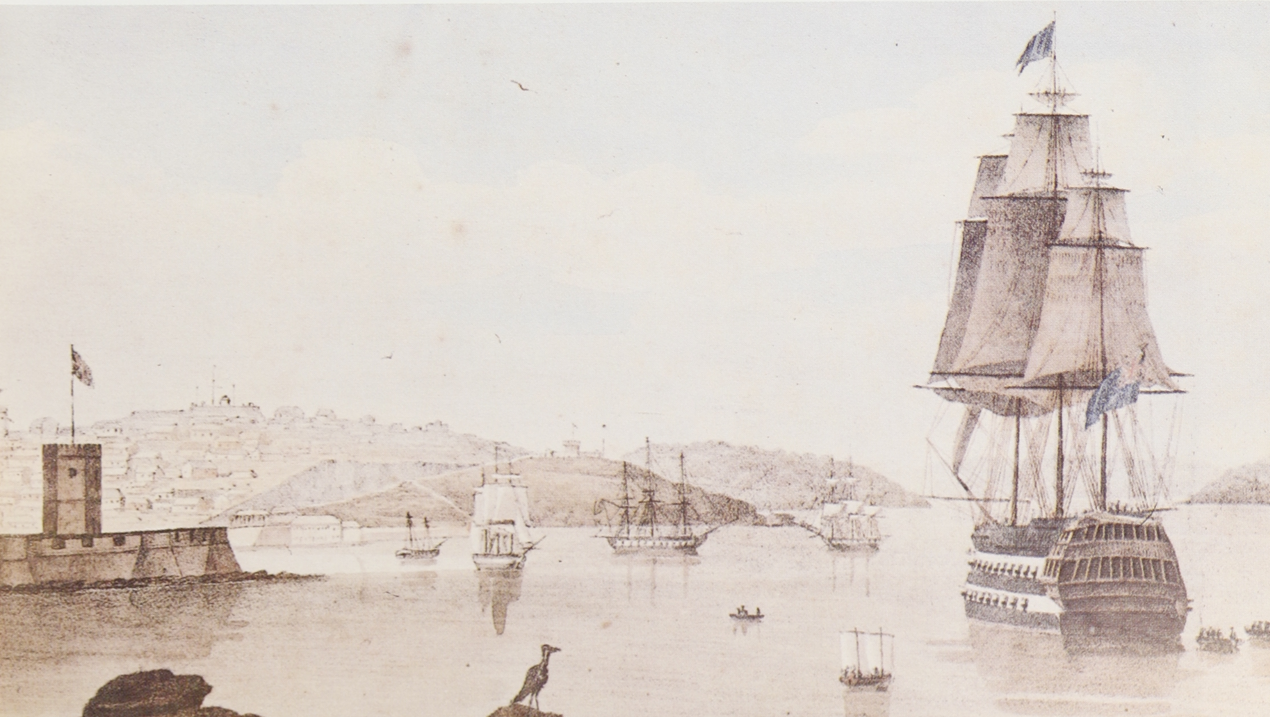
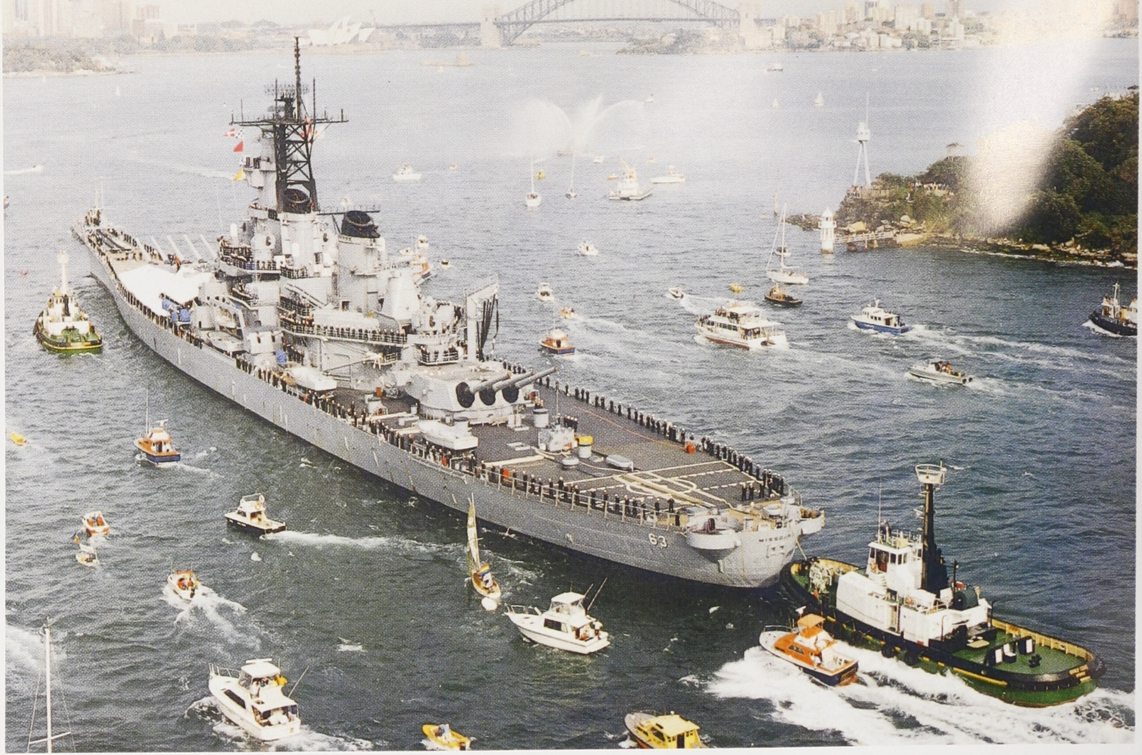
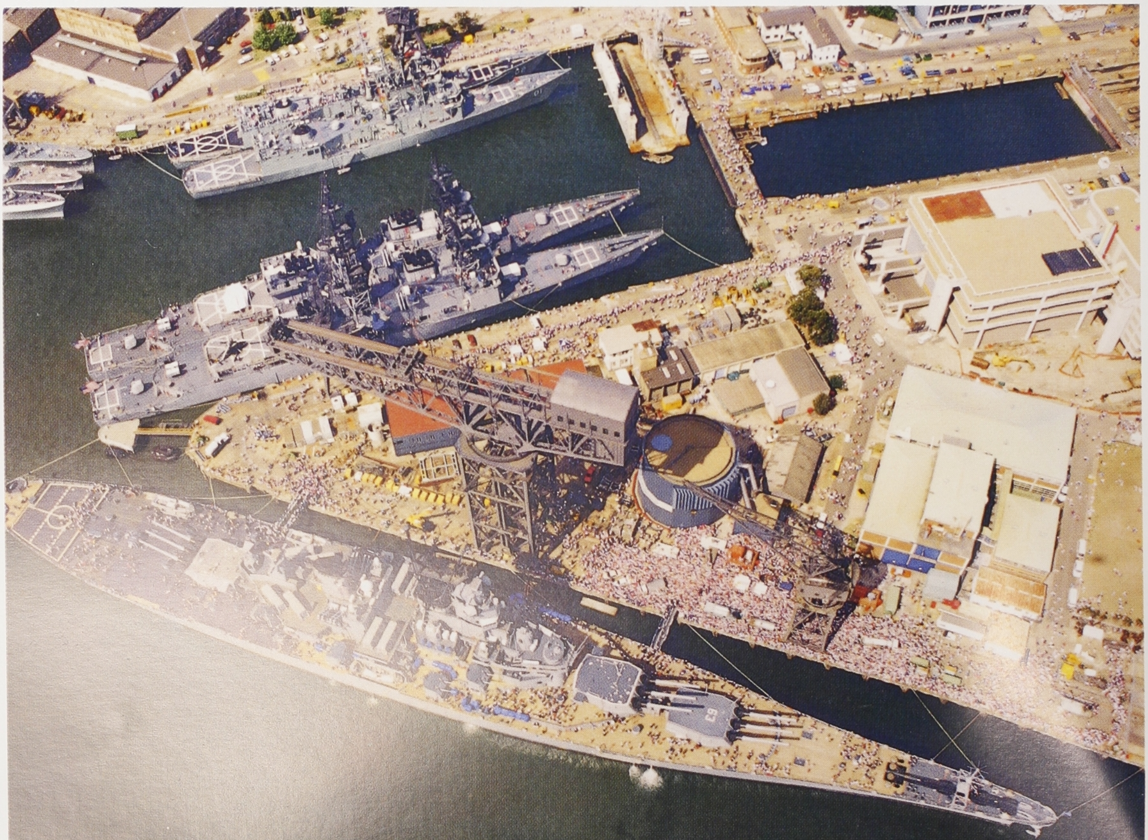


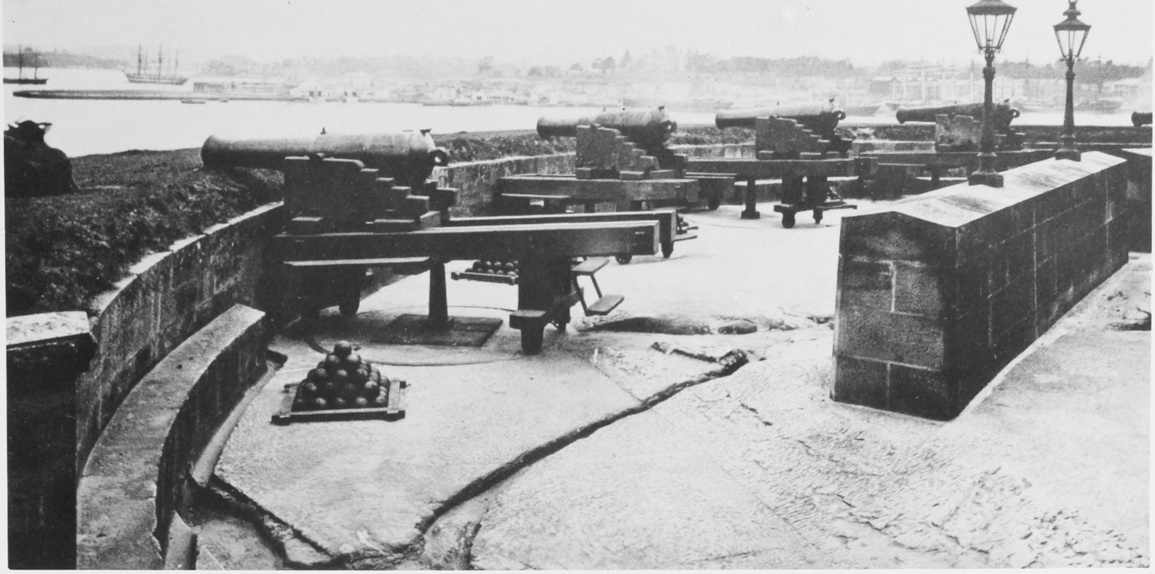


75th Anniversary of the Royal Australian Navy, 4 October 1986 — the U.S.S. "Missouri" (above) entering Sydney Harbour for the celebrations, and Open Day on Garden Island (below). Until 1913, the naval defence of Australia was maintained by the Imperial Navy under agreement between the British Government and the Governments of Australia and New Zealand. In that year, however, the Imperial Squadron was replaced by Australian war vessels. In 1986, a multinational fleet visited Sydney Harbour as a tribute to the Australian Navy's 75 years. Among the participating vessels, the U.S.S. "Missouri" has an illustrious record and is one of only three battleships still afloat — she was launched in January 1944, served in the Pacific war zone and was the backdrop for General Douglas Macarthur's acceptance of Japan's surrender in Tokyo Bay on 2 September 1945.

The naval base of Garden Island employs about 3,500 people and its dockyard and maintenance facilities are currently being modernised. Over the next twenty years, the Navy plans to transfer a number of its facilities from Sydney to Jervis Bay, including its Fleet Base at Garden Island.

Photographs by Royal Australian Navy





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Sydney defences at Dawes Point Battery (above) and Fort Macquarie (below). Both Dawes Battery (on the west of Sydney Cove) and Fort Macquarie (on its east) were established by Governor Macquarie. In their day, they were thought to render Sydney impregnable but this was before the widespread use of cannon and other huge artillery. On 28 March 1854, the Crimean War, involving Britain and Russia, broke out and the whole question of the colony's defence came under fresh scrutiny. There were already a small number of British regulars on duty and it was felt that these should be added to; cannons were also to be despatched from Britain and small fortifications built to accommodate them; and the entire harbour in front of Sydney was to be protected. The outcome was the establishment of batteries, not only at Dawes Point (site of present Pier One) and Fort Macquarie (site of the Opera House on Bennelong Point) but also at Kirribilli Point, Fort Denison and Macquarie Point. As a further result of the Crimean War, local interest in defence led to the formation of volunteer forces, an Act authorising the establishment of a volunteer force being assented to on 24 July 1854. In the lower photograph are pictured men from the Naval Brigade and the Naval Artillery Volunteers, both of which had their headquarters at Fort Macquarie from 1870 to 1901. The Naval Brigade was first enrolled in 1863, being intended originally to act as coastal defence (although it was used primarily as a land force for many years). It consisted of about 280 men stationed in Sydney, and 60 in Newcastle. The Naval Artillery Volunteers comprised about 275 men of varied rank, who undertook to man and operate any available gunboat, or serve as field artillery if required.

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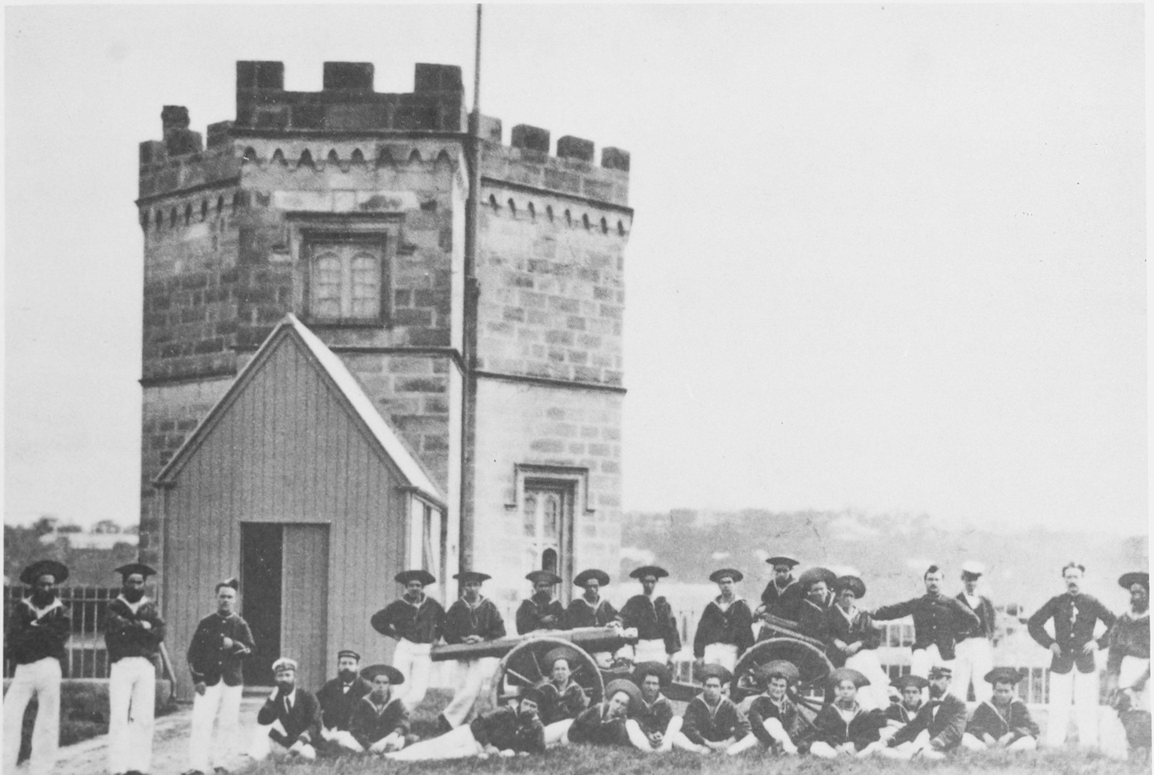

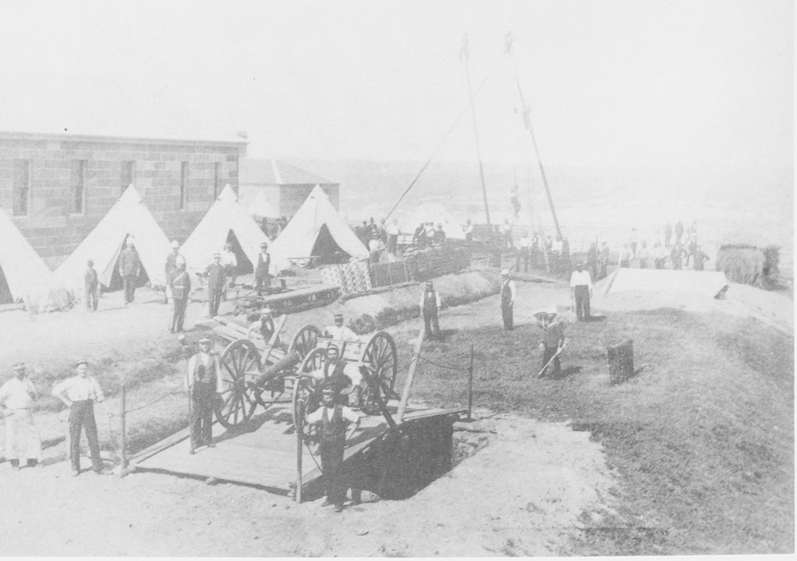

Left: Military training of artillery, about 1880. The land forces of the colony comprised three distinct branches: the Permanent or Regular Military Force, the Volunteers or partially paid Force, and the Reserves. Both the Permanent Force and the Volunteers included artillery. The Permanent Artillery numbered about 500 men. These manned the batteries protecting the harbours of Sydney, Botany Bay and Newcastle; they also mounted guard over the vice-regal residence and performed any other duty appropriate to a garrison. The Volunteer Artillery consisted of 525 men of various ranks, and these were distributed over the four districts of Sydney, Newcastle, Wollongong and Bulli. Every volunteer was required to serve for nine continuous days in camp as well as for two other days, and certain half-days and night drills which were specified during the course of the year.

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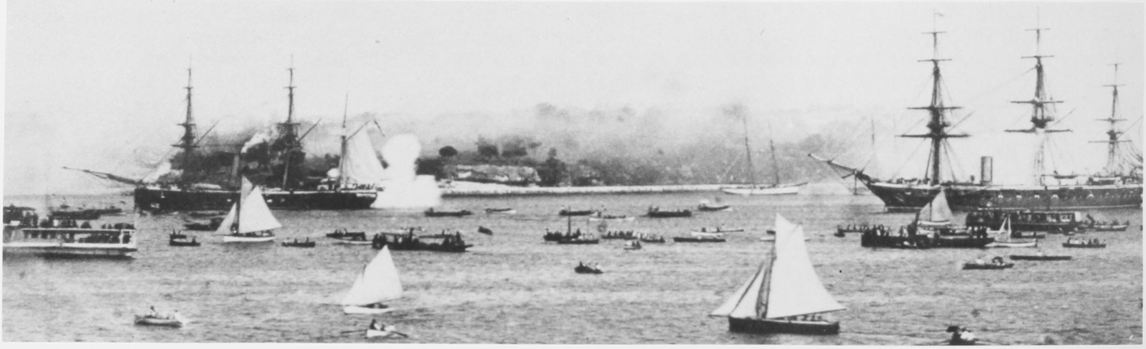
Naval review and sham naval battle, Farm Cove, 23 April 1881, (centre). Fear of Russian invasion persisted throughout the last decades of the nineteenth century, keeping the colonial mind focussed upon defence. Here we see the Naval Reserve engaging in a mock battle to defend Farm Cove from "attack". Shots have been exchanged between two men-of-war which are being observed by numerous assorted craft including small sailboats and ferries.



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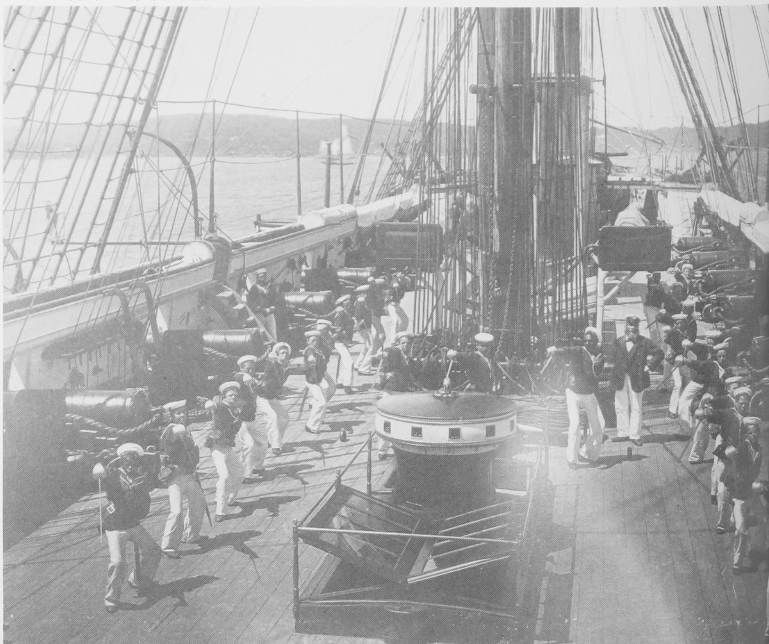
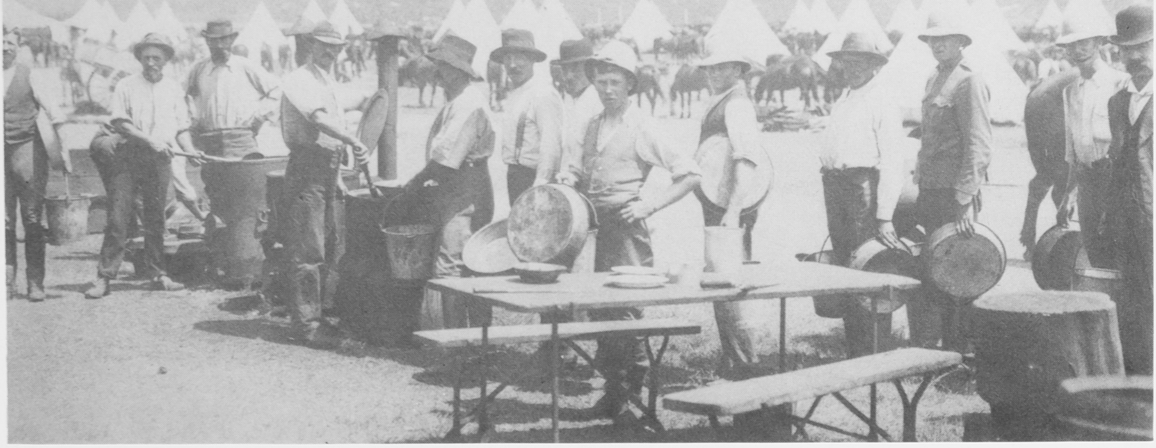


Cutlass drill on H.M.S. "Wolverine", 1882. "Wolverine" first arrived in Australia in 1875, serving as flagship of the Australian Squadron of the Royal Navy. On 16 January 1882, at the request of the New South Wales Government, the Imperial authorities presented the ship to the colony as a gift to be used to train the Naval Brigade in naval manoeuvres. The ship was subsequently employed as a drill ship, being manned over Christmas and Easter, and on Saturday afternoons and holidays. In addition to her sixteen 8-inch guns, her one 7-inch gun and her four 40-pounders, "Wolverine" bore numerous small armaments, including 92 Henri-Martini rifles, 35 Enfield revolvers and 75 cutlasses. Except for her intermittent training cruises, however, "Wolverine" spent most of her time anchored in Sydney Harbour. Sold privately in 1892, she sailed for Britain in 1894 but proved unseaworthy and was finally hulked in Auckland, New Zealand.



Archives Office of N.S.W.

Meal time at Bushmen's Contingent camp, Kensington (above). In December 1899, in the face of considerable Boer victories in South Africa, some prominent Sydney citizens undertook to raise a force of 500 bushmen sponsored by public subscription. Mounted troops had demonstrated their effectiveness against the Boers, who were themselves accomplished Bushmen. The call for New South Wales met with an immense response and, by 11 January 1900, the Government was forced to accommodate bush volunteers in a section of the military camp at Randwick. In early February, the bushmen left this camp for one at Kensington Racecourse, where they drilled and trained, often under the enthusiastic eyes of a paying public. On 26 February 1900, the khaki-clad citizens Bushmen's Contingent marched to the transports amid cheering crowds. In March, the British Government requested the raising of a further 2,000 men, at British cost, to be entitled the New South Wales Imperial Bushmen's Contingent.

New South Wales Sudan Contingent embarking, 3 March 1885, (below). On 26 January 1885, General Godon, the Egyptian Administrator in the Sudan, was murdered by Muslim dervishes while conducting the withdrawal of administrative and military staff. On 11 February, the Sudanese city of Khartoum fell and New South Wales thereupon made an offer to the British Government to send troops to the Sudan. The offer was accepted and, in the patriotic climate of the times, recruits for the volunteer force were plentiful. All medical examinations, military drill and training were undertaken at Victoria Barracks, Paddington, where the volunteers were also accommodated. By 3 March 1885, the Contingent of 760, comprising artillerymen, infantry and an ambulance corps, together with two hundred horses, departed from Circular Quay amid appreciative crowds. The Contingent joined the Nile Field Force, but the British withdrew shortly afterwards and the Contingent returned to Sydney after only three months.

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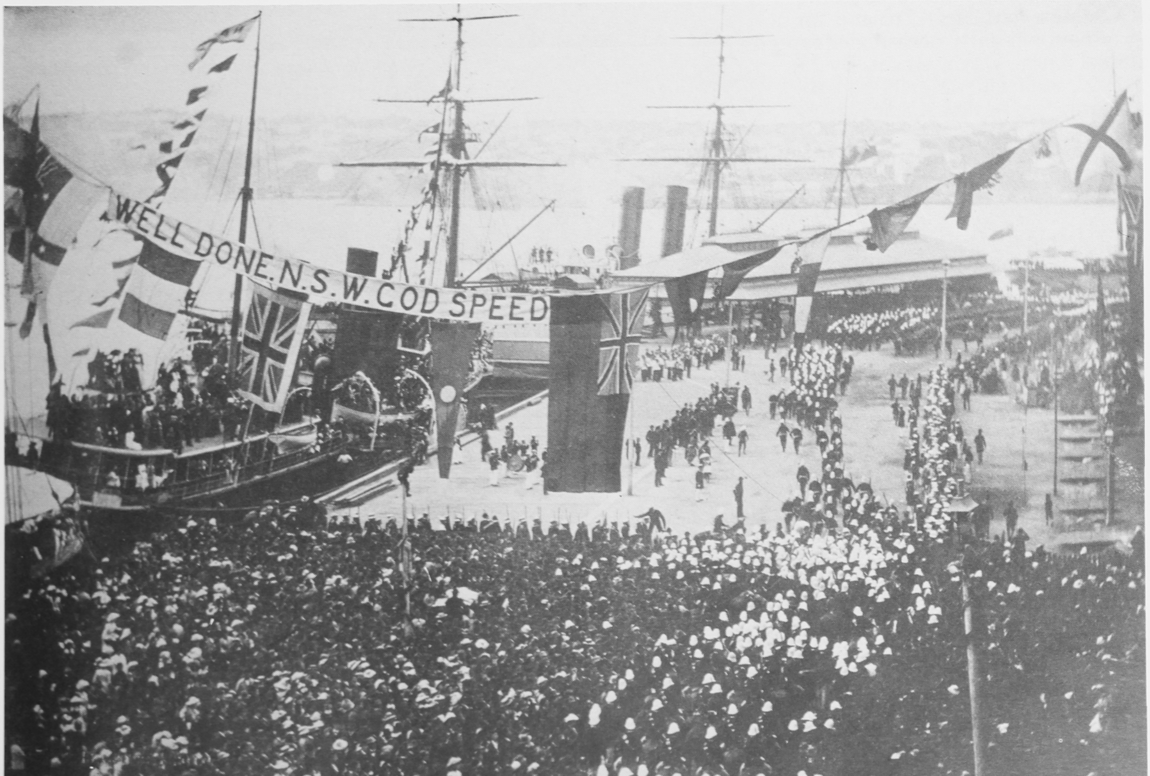
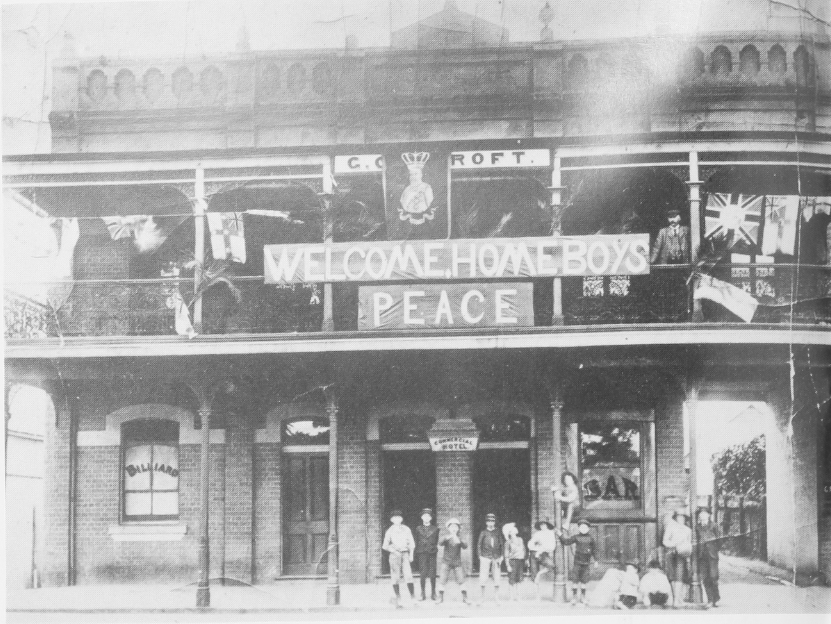

WELL DONE N.S.W. GOD SPEED

Right: Commercial Hotel, Richmond, New South Wales — Heroes' Welcome, 1901. In May 1900, the first soldiers — fifty wounded and disabled men — had returned home from the Boer War, welcomed tumultuously by vast crowds. The scene was to be repeated many times in New South Wales towns, as progressive shipments of men returned. Further mounted troops were despatched from Australia early in 1902 — the first forces to represent the new Commonwealth Government — but the position of the Boer people and their armed forces had been growing increasingly desperate for some time. After protracted negotiations, the Boer leaders finally signed the Treaty of Vereeniging at Pretoria at 11 p.m. on 31 May 1902, completely surrendering their independence.



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Right: First Anzac Day March, Crown Street, Wollongong, 25 April 1917. On 25 April 1915, British troops and the Australian and New Zealand Army Corps had landed at a cove on the Gallipoli Peninsula in the Dardanelles. Their aim was to open up a route for Russia by seizing forts guarding entrance to Constantinople. In a strictly military sense, the expedition was a failure, as the Turks had learnt of their plans well in advance, and lay in ambush in the ring of hills surrounding the beach, effecting many casualties. The troops, however, gained popular support by holding out for eight months in the face of constant Turkish attack, and in so doing gave Australia and New Zealand an image of national unity perpetuated in the annual Anzac Day marches. By 25 April 1917, sufficient soldiers had returned home for the first Anzac Day to be commemorated.

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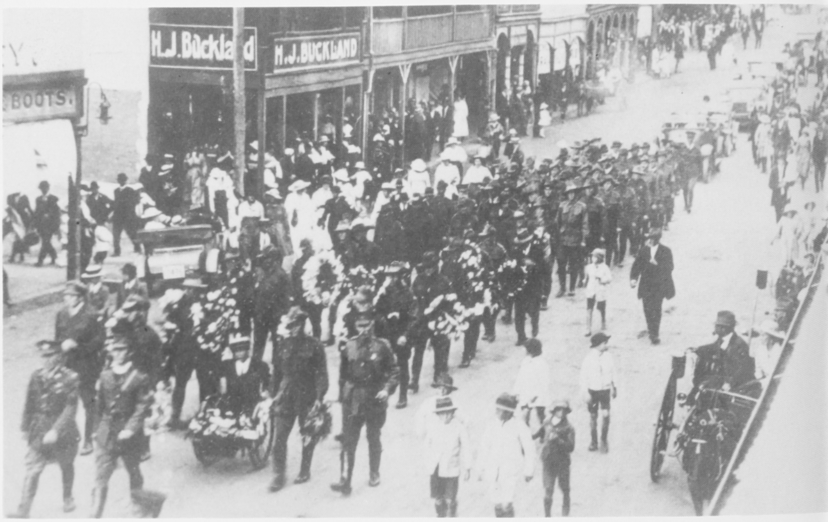

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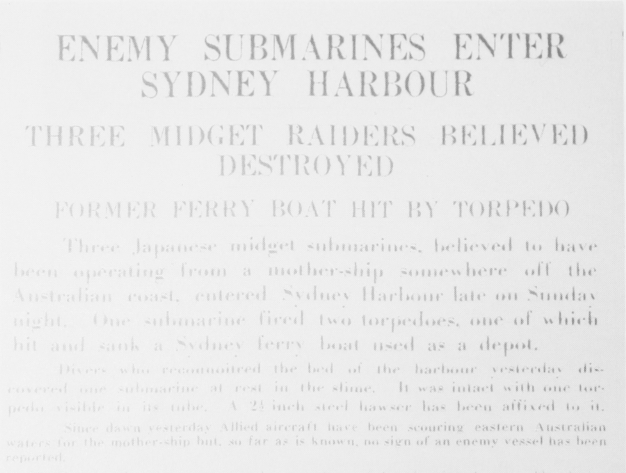


ENEMY SUBMARINES ENTER SYDNEY HARBOUR

THREE MIDGET RAIDERS BELIEVED DESTROYED

FORMER FERRY BOAT HIT BY TORPEDO

Three Japanese midget submarines, believed to have been operating from a mother-ship somewhere off the Australian coast, entered Sydney Harbour late on Sunday night. One submarine fired two torpedoes, one of which hit and sank a Sydney ferry boat used as a depot.

Divers who reconnoitred the bed of the harbour yesterday discovered one submarine at rest in the slime. It was intact with one torpedo visible in its tube. A 2½ inch steel hawser has been affixed to it.

Since dawn yesterday Allied aircraft have been scouring eastern Australian waters for the mother-ship but, so far as is known, no sign of an enemy vessel has been reported.

Left: Midget submarines fire on Sydney Harbour, 31 May/1 June 1942 ("Sydney Morning Herald", 2 June 1942). The Japanese surprise attack came three months after Darwin's (February 1942) and at a time when forty Allied ships of war were concentrated in Sydney Harbour. Three midget submarines participated, two officers manning each craft. At 8.15 p.m., the first submarine (I-27) became entangled in the harbour's protective boom net. One hour later, the second submarine fired two torpedoes, one of which sank the naval depot ship, H.M.A.S. "Kuttabul", killing nineteen naval ratings and injuring ten. The two torpedoes of the third submarine (I-22) were damaged and would not fire. I-27 and I-22 were subsequently recovered and a composite submarine, comprising the stern of I-27 and the bow of I-22, was reconstructed and exhibited outside the Australian War Memorial in Canberra. One week after the attack, two submarines shelled suburbs of Sydney and Newcastle, fortunately with no loss of life.

Average Local Values of Agricultural Commodities Produced, Crops, N.S.W. ($)

Crop	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Per hectare			
Cereals for grain —						
Wheat	109	207	70	285	r212	205
Oats	106	104	47	89	95	98
Barley	108	145	60	176	109	118
Maize	452	504	597	636	392	514
Sorghum	121	166	152	320	169	172
Rice	1,283	773	953	664	971	753
Hay —						
Wheat	223	173	174	231	179	207
Oats	198	215	157	212	149	204
Sugarcane (cut for crushing)	2,891	1,440	1,636	1,668	1,779	1,512
Cotton *(a)*	1,962	2,068	1,533	1,920	1,991	1,956
Oilseeds —						
Linseed	117	160	79	201	200	204
Rapeseed	119	152	103	234	282	291
Safflower	73	128	142	66	115	91
Sunflower	124	180	125	208	209	189
Soybeans	577	425	281	478	562	389
Tobacco	5,821	6,100	7,096	8,083	9,342	9,666
Bananas (bearing area)	5,049	4,072	4,534	4,912	6,896	8,554
Potatoes	2,547	2,188	2,184	5,838	2,125	4,060
			Per tonne produced			
Cereals for grain —						
Wheat	127	126	147	127	132	127
Oats	124	78	136	64	74	78
Barley	120	102	122	104	72	79
Maize	130	110	152	129	102	104
Sorghum	104	78	134	116	109	92
Rice	180	110	145	125	135	110
Hay —						
Wheat	109	61	117	62	62	67
Oats	94	73	122	61	57	72
Sugarcane (cut for crushing)	28	14	15	17	17	17
Cotton *(a)*	608	528	519	686	489	490
Oilseeds —						
Linseed	246	270	258	278	297	300
Rapeseed	244	223	226	261	269	251
Safflower	243	252	319	223	220	199
Sunflower	232	203	235	285	264	216
Soybeans	291	225	264	289	309	244
Tobacco	3,593	3,840	4,080	4,348	4,466	4,723
Bananas	397	307	331	404	518	642
Potatoes	184	126	141	307	128	221

(a) Seed cotton.

FERTILISERS USED ON CROPS (EXCLUDING PASTURES)

The table on the following page shows the area of crops (excluding pastures) treated with artificial fertilisers and the quantity of superphosphate and other artificial fertilisers used in the last six seasons.

A number of factors such as the price of agricultural products, the cost of other raw materials used, the price of fertilisers (which depends to a certain extent on the level of bounty payments), and responses to the introduction or withdrawal of fertiliser bounty schemes, affect the level of usage of fertilisers.

Crops *(a)* Treated with Artificial Fertilisers, N.S.W.

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Area treated (hectares) —						
Wheat	1,987,359	2,156,981	2,143,194	2,397,942	2,382,091	2,383,022
Other crops	n.a.	1,204,784	n.a.	n.a.	1,163,161	1,238,739
Total area treated	**n.a.**	**3,361,765**	**n.a.**	**n.a.**	**3,545,252**	**3,621,761**
Artificial fertiliser used *(b)* (tonnes)						
Superphosphate *(c)*	201,293	249,739	245,824	276,189	205,852	179,668
Other	121,886	121,833	146,345	142,284	180,405	214,289
Total artificial fertiliser used	**323,179**	**371,572**	**392,169**	**418,473**	**386,257**	**393,957**

(a) Excluding pastures, grasses, and lucerne. *(b)* Excludes lime, gypsum, and dolomite. *(c)* Includes superphosphate with trace elements, sulphur, etc.

MARKETING OF PRIMARY PRODUCTS

The Marketing of Primary Products Act 1983, provides a framework within which statutory authorities can be established at the request of growers. These authorities can take the form of marketing boards and marketing committees. In addition the Act provides for the establishment of the Agricultural Marketing Finance Agency and the establishment of the position of Director of Marketing.

The primary objective of a marketing board is to improve returns to growers producing the commodity covered by that board. A board's main activity is in the area of marketing this commodity. A board can appoint authorised agents to carry out all or some of its activities such as the purchase and sale of a commodity on its behalf. Its activities may include accumulating reserves, operating flexible pool arrangements for the commodity, using futures markets for hedging purposes, taking out loans and determining payments to growers for the delivery of a commodity to the board. There are nine operating marketing boards in New South Wales. A marketing board can be established for a particular commodity only after a poll is conducted where a majority of producers of the commodity must vote in favour of the board's establishment. The board's membership consists of between two and five elected growers and one or two nominated members. Members of a board are appointed for a four year term.

A marketing order can be established for a variety of purposes such as setting minimum market prices or establishing quality standards. Unlike marketing boards, marketing orders can not prohibit the production of a commodity or compulsorily acquire a commodity. A marketing order can be established only after a majority of producers vote in favour of its establishment. An order is administered by a committee appointed by the Minister for Agriculture.

The Agricultural Marketing Finance Agency was established in 1984 to provide and organise financial services relating to the marketing and processing of primary products for marketing boards and other approved clients. The Agency provided a useful service to marketing boards by helping them to arrange finance for their particularly individual requirements. The deregulation of banking led to an expansion of commercial finance facilities reducing the need to a specialised finance broker such as the Agricultural Marketing Finance Agency resulting in the Agency being wound up in late 1986.

The Director of Marketing as established under the Act, is responsible to the Minister for: oversighting the operation of all authorities under the Act; coordinating contact by these authorities with the Minister, the N.S.W. Department of Agriculture and other government departments; and general administration of the Act. The Director is required to report to the Minister on any proposals received, to establish, vary or dissolve Marketing boards as well as report on proposals to make, extend or revoke marketing orders.

WHEAT

Wheat is the principal product on a large proportion of the establishments with agricultural activity in the State. However relatively few establishments are devoted exclusively to the cultivation of wheat.

Establishments Growing Wheat

For most of the post-war period the average size of areas sown to wheat for grain on establishments remained below 90 hectares, and reached a low point in the 1956-57 season of 60 hectares per establishment; the overall average for the seasons from 1945-46 to 1965-66 was 87 hectares. Since then, apart from those seasons in which wheat delivery quotas were imposed, the average size of wheat (for grain) areas on establishments has increased substantially, the average for the 1985-86 season being 244 hectares. This indicates that the optimal area to maximise the benefits of modern machinery, improved methods, and farm management practices, is increasing. Establishments growing wheat for grain in the seasons 1980-81 to 1985-86 are classified in the following table according to the area sown with wheat for grain on each establishment.

Establishments with Wheat for Grain, Classified by Area of Wheat for Grain, N.S.W.

Area under wheat	*Number of establishments with wheat for grain in —* 1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	*Proportional change 1980-81 to 1985-86 (per cent)*
Area under wheat grain (hectares)							
1- 19	867	936	763	878	777	779	(+)0.3
20- 39	1,414	1,379	1,358	1,321	1,222	1,203	(–)1.6
40- 74	2,557	2,393	2,480	2,275	2,373	2,248	(–)5.3
75-149	4,114	3,865	3,854	3,601	3,663	3,460	(–)5.5
150-249	3,194	3,191	3,014	3,063	3,029	2,893	(–)4.5
250-399	1,929	1,977	1,718	2,230	1,835	1,859	(+)1.3
400-999	1,762	1,954	1,688	2,224	2,030	2,040	(+)0.5
1,000 or more	308	401	335	531	451	506	(+)12.2
Total establishments	**16,145**	**16,096**	**15,210**	**16,123**	**15,380**	**14,988**	**(–)2.5**

Production of Wheat

The next table shows the area under wheat, the production of wheat and the yield of wheat for each of the seasons since 1975-76.

Wheat: Area, Production and Yield, N.S.W.

	Area sown (a) ('000 hectares)				*Production ('000 tonnes)*		*Average yield per hectare (tonnes)*	
Season	*For grain*	*For hay*	*For green fodder*	*Total*	*Grain*	*Hay*	*Grain*	*Hay*
1975-76	2,774	13	16	2,804	4,310	37	1.55	2.78
1976-77	3,116	19	16	3,150	5,141	52	1.65	2.77
1977-78	3,377	20	19	3,417	3,846	42	1.14	2.11
1978-79	3,162	12	10	3,184	6,640	38	2.10	3.20
1979-80	3,415	14	13	3,441	6,000	41	1.76	3.00
1980-81	3,345	33	20	3,398	2,865	68	0.86	2.05
1981-82	3,600	22	13	3,636	5,910	63	1.64	2.82
1982-83	3,162	29	43	3,234	1,499	44	0.47	1.49
1983-84	3,999	23	9	4,030	8,961	84	2.24	3.75
1984-85	3,603	13	6	3,622	5,805	39	1.61	2.90
1985-86	3,663	16	8	3,687	5,916	49	1.62	3.09

(a) Areas of wheat which failed entirely are included in the column which corresponds to the purpose for which the wheat was sown.

During the 1950's the relatively high prices of wool resulted in a large number of farmers increasing their sheep raising activities often at the expense of wheat growing. A reversal of this trend occurred in the 1960's and led to an increase in the number of establishments which grew wheat, resulting in a peak season in 1968-69 in which 22,019 establishments, with 4,117,000 hectares sown, produced 5,855,000 tonnes of wheat. Since that season, a trend towards less establishments and improved yields is evident; resulting in a peak season in 1983-84 when 16,123 establishments produced 8,960,000 tonnes of grain from 3,999,275 hectares. Compared with these record years, during the past 50 years, the lowest number of establishments which planted wheat and the lowest area of wheat planted were recorded in 1956-57 (11,754 establishments and 733,000 hectares respectively); the lowest production of wheat was recorded in 1946-47 (426,800 tonnes). In 1985-86, 14,988 establishments produced 5,915,526 tonnes of grain from 3,662,593 hectares. Wheat delivery quotas were imposed for the seasons 1969-70 to 1974-75 and further details on these quotas are given on page 829 of Year Book No. 64.

Prior to 1970-71, about 60 per cent of the total area under crops was devoted to wheat production. In the 1970-71 season, following the introduction of wheat quotas, this proportion fell to 46 per cent but by 1974-75 had risen again to 60 per cent of the total area of crops. In 1984-85, the proportion of the total area under crops, which was devoted to wheat (grain) production, was 60 per cent.

The average yield of wheat for grain per hectare is subject to marked fluctuations by reason of the widely divergent nature of each growing season. From the 1870's to the Second World War, available statistics indicate that the annual yield had fluctuated around the level of just over 0.8 tonnes per hectare. Since the War, largely as a result of the adoption of more scientific methods of cultivation, land use and plant breeding, the average has increased significantly. In the three decades to 1974-75, the average yield was 1.21 tonnes per hectare.

The highest yearly average yield ever recorded in New South Wales was 2.24 tonnes per hectare in 1983-84. The average yield of wheat for grain in 1985-86 was 1.62 tonnes.

Location of Wheat Growing Areas

Differences of soil, geographical features, and other factors play a considerable part in determining the yields of the various areas. The following table shows area, production, and yield of wheat for grain by Statistical Divisions in the last six seasons.

Wheat for Grain: Area, Production and Yield, in Statistical Divisions

Statistical divisions	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Area (hectares)			
Sydney	—	—	—	—	—	—
Hunter	44,696	49,500	33,669	51,011	43,585	44,247
Illawarra	32	62	—	—	—	40
Richmond-Tweed	912	754	874	732	507	538
Mid-North Coast	143	134	341	96	180	247
Northern	761,992	933,457	630,334	937,188	748,356	805,263
North-Western	711,531	799,081	632,072	895,150	832,003	863,544
Central West	760,981	790,185	788,229	927,593	818,032	839,276
South Eastern	75,332	80,336	89,651	107,035	104,386	90,436
Murrumbidgee	597,496	575,050	622,772	651,317	649,914	619,335
Murray	391,678	371,234	363,717	428,119	400,014	391,598
Far West	207	207	—	1,034	5,653	8,068
Total, N.S.W.	3,345,000	3,600,000	3,161,659	3,999,275	3,602,630	3,662,593
			Production (tonnes)			
Sydney	—	—	—	—	—	—
Hunter	21,072	120,190	19,897	133,143	74,828	90,207
Illawarra	—	151	—	—	—	—
Richmond-Tweed	1,431	1,655	1,382	732	924	1,130
Mid-North Coast	158	299	707	9	350	368
Northern	342,924	1,391,932	434,977	1,938,996	1,252,056	1,387,061
North-Western	375,810	1,042,551	147,577	1,917,226	1,130,886	1,059,355
Central West	571,422	1,288,564	201,112	2,226,203	1,279,545	1,408,157
South Eastern	140,959	199,893	54,021	284,309	142,120	182,002
Murrumbidgee	896,298	1,181,594	415,656	1,550,346	1,244,187	1,135,610
Murray	514,273	682,831	224,077	906,550	661,178	630,439
Far West	653	340	—	3,270	18,626	21,195
Total, N.S.W.	2,865,000	5,910,000	1,499,406	8,960,784	5,804,702	5,915,526
			Yield (tonnes per hectare)			
Sydney	—	—	—	—	—	—
Hunter	0.47	2.43	0.59	2.61	1.72	2.04
Illawarra	—	2.44	—	—	—	—
Richmond-Tweed	1.57	2.19	1.58	1.00	1.82	2.10
Mid-North Coast	1.10	2.23	2.07	0.09	1.94	1.49
Northern	0.45	1.49	0.69	2.07	1.67	1.72
North-Western	0.53	1.30	0.23	2.14	1.36	1.23
Central West	0.75	1.63	0.26	2.40	1.56	1.68
South Eastern	1.87	2.49	0.60	2.66	1.36	2.01
Murrumbidgee	1.50	2.05	0.67	2.38	1.91	1.83
Murray	1.31	1.84	0.62	2.12	1.65	1.61
Far West	3.15	1.64	—	3.16	3.29	2.63
Total, N.S.W.	0.86	1.64	0.47	2.24	1.61	1.62

Varieties of Wheat Grown

Progress in plant-breeding has been almost continuous since Farrer's work between 1886 and 1905. New varieties of wheat have been introduced and subsequently replaced by types more suitable from the standpoint of climate and soil, disease resistance, quality, and yield. Current priorities are to develop and identify varieties which show more drought tolerance, frost resistance, sprouting resistance, acid soil tolerance, more resistance to attacks of rusts, speckled leaf blotch and takeall, and those varieties which can grow faster or utilise lower levels of soil nutrients and trace elements. In this work, wheatgrowers have co-operated with the Department of Agriculture in cultivating experimental plots on farms throughout the State.

Wheats of good milling and baking quality have been developed to replace weak, soft flour wheats of low gluten content, especially in the Northern Wheat Areas.

All varieties approved by the Department of Agriculture for 1987 are fully resistant to prevalent races of stem rust, and all are capable of producing medium to heavy yields under reasonable soil and seasonal conditions. About half of the commercial varieties of wheat, however, are susceptible to leaf rust, and three are moderately susceptible to stripe rust.

In 1980-81 the Australian Wheat Board introduced a discount scheme whereby a scale of varietal discount rates per tonne is charged for varieties which are not recommended or are undesirable for the area in which they were grown. A scale of penalty rates, based on the degree of undesirability, is set each season.

The area sown to the principal varieties of wheat in New South Wales in recent seasons is shown in the next table.

Varieties of Wheat Sown, N.S.W. (Hectares)

Variety	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Avocet	6,513	61,068	143,184	106,358	*(b)*	*(b)*
Banks	10,988	92,805	646,332	1,011,792	1,058,789	874,372
Condor	744,142	724,076	564,637	465,418	314,773	222,230
Cook	224,194	353,558	301,573	373,106	273,694	149,379
Egret	775,234	668,135	332,136	162,365	70,655	*(b)*
Gatcher	44,371	46,828	40,587	51,272	45,661	32,585
Harrier	n.a.	n.a.	15,881	156,195	205,468	117,030
Hartog	*(b)*	*(b)*	*(b)*	*(b)*	43,142	239,368
Kite	199,375	242,194	237,238	322,256	293,267	261,006
Millewa	n.a.	n.a.	26,448	100,468	244,180	262,386
Olympic	135,762	129,068	171,425	227,888	162,780	120,875
Osprey	*(b)*	*(b)*	*(b)*	*(b)*	54,417	223,730
Quarrion	*(b)*	*(b)*	*(b)*	*(b)*	48,279	215,837
Shortim	184,039	151,675	102,576	119,408	52,169	12,898
Songlen	459,058	590,118	327,236	413,193	206,898	75,467
Sunstar	*(b)*	*(b)*	*(b)*	*(b)*	99,201	194,533
Sunkota	n.a.	n.a.	n.a.	n.a.	176,969	267,069
Sanstar	*(b)*	*(b)*	*(b)*	*(b)*	29,508	182,742
Teal	100,561	97,259	96,131	103,146	*(b)*	*(b)*
Timgalen	163,652	165,885	77,803	72,799	*(b)*	*(b)*
Other varieties	233,532	199,156	136,919	202,306	200,791	220,945
Total area sown *(a)*	**3,281,241**	**3,521,825**	**3,220,106**	**3,887,970**	**3,580,641**	**3,672,454**

(a) Only includes areas of wheat for those varieties which were reported. As some small areas of wheat were not reported by variety, the totals shown do not agree with the total area shown as sown in the following table. *(b)* Information not separately compiled and included in "Other" or not planted in that year.

Marketing of Wheat

Australian Wheat Board

The Australian Wheat Board has the responsibility for marketing Australian wheat overseas and is also involved in the marketing of wheat in Australia. In co-operation with the various State bulk handling authorities, it also controls the handling, storage, and shipment of wheat. The Board, which has been in continuous operation since 1939, derives its power from the *Wheat Marketing Act 1984*. Wheatgrowers must deliver all their wheat to the Board, except stocks which they retain on their farms for seed or stockfeed purposes. However the legislation specifies that growers, with the approval of the Board, may arrange direct deliveries to buyers, transfer wheat between properties, have wheat gristed for stockfeed and sell seed and wheat of absolutely inferior quality outside the Board. A subsection on this Act follows later in this division.

Classification of Wheat

The test weight for an average sample of each grade of wheat is determined annually by measuring the weight of wheat in a standard volume. This is done in each State by the Australian Wheat Board and an informal committee comprising representatives of the Wheat Board, each State's Agricultural Department, the bulk handling authorities, farmers' organisations, and shippers and millers.

Five main grades are normally defined for wheat produced in New South Wales: Prime Hard (a hard grained free milling high-protein wheat producing a strong flour of well-balanced dough qualities), Southern Hard (a hard grained grade with medium to high protein content), Northern A.S.W. (a predominantly hard wheat of moderate strength and medium-protein content), Northern Hard (a predominantly hard grain of good strength with relatively high-protein content), and Southern-Western A.S.W. (a mixture of hard and soft wheat of moderate strength and medium-protein content). Due to seasonal conditions, a Northern A.S.W. sample was not established for the 1985-86 season.

Wheat can be classified as "Australian General Purpose" or "Australian Feed" for one or more of the following defects: excessive unmillable material, fungal stained, dry, green, sappy or distorted grains or seed contaminants; presence of sprouted grains; low test weight. The magnitude of the defects will determine the grade to which the wheat is downgraded.

The test weights, in kilograms per hectolitre, determined for each grade of New South Wales wheat for the 1980-81 to 1985-86 seasons were:

Season	*Prime Hard kg per hl*	*Northern Hard kg per hl*	*Southern Hard kg per hl*	*Southern/ Western A.S.W. kg per hl*	*Northern A.S.W. kg per hl*
1980-81	78.0	80.0	79.5	79.0	79.0
1981-82	79.0	80.5	80.5	79.5	78.5
1982-83	81.7	81.3	81.5	79.7	. .
1983-84	77.9	78.2	. .	78.5	. .
1984-85	79.8	79.9	81.4	82.4	. .
1985-86	80.6	80.6	79.6	80.3	. .

Australian wheat is marketed in seven general classes : Prime Hard; Hard; A.S.W.; Soft; Durum; General Purpose; and Feed.

Bulk Handling of Wheat

Bulk handling of wheat in New South Wales is carried out by the Grain Handling Authority of New South Wales which was constituted in 1981 under the Grain Handling Act 1954 to replace the Grain Elevators Board of New South Wales.

The main function of the Authority is the receival, storage, and handling of wheat on behalf of the Australian Wheat Board, and in accordance with a requirement of the Act preference is given to this commodity. The Authority also handles smaller quantities of other cereal grains and oilseeds on behalf of other State marketing authorities and, occasionally, private merchants.

The bulk handling system consists of some 480 bulk storages located at over 270 separate centres throughout the New South Wales wheat belt. The total silo storage capacity in country areas is 11,653,600 tonnes and the capacities of individual storage units vary from 800 to 153,000 tonnes. A storage site can contain more than one storage unit. The Grain Handling Authority country storage is comprised of 5,848,000 tonnes of bunker type storage and 5,805,600 tonnes in conventional elevators. Each centre is equipped to receive grain in bulk from growers' vehicles and to load into bulk railway trucks. Included in the country storages are five sub-terminals (at Parkes, Werris Creek, Temora, Moree and Junee) with a combined capacity of 1,800,000 tonnes. They are located at important rail junctions for the purpose of receiving overflow grain during the harvest season.

Terminal elevators constructed at Sydney and Newcastle handle the storage and shipment of many grades of wheat and of other grains. The Sydney Terminal has a storage capacity of 143,060 tonnes whilst Newcastle can store 154,000 tonnes. The elevator at Sydney has a peak receiving capacity of about 2,000 tonnes per hour and a peak shipping rate of about 3,200 tonnes per hour. At Newcastle the receiving capacity is approximately 2,720 tonnes per hour and the shipping rate is 3,200 tonnes per hour. The total storage capacity of the entire grain handling system for the 1985-86 wheat season was 11,950,660 tonnes. A new grain terminal is currently under construction at Port Kembla, and is expected to be completed in 1989. The new terminal will have a storage capacity of 260,000 tonnes, a receiving capacity of 3,600 tonnes per hour and a shipping rate of 5,000 tonnes per hour.

Under a remuneration agreement between the Authority and the Australian Wheat Board, a fixed rate per tonne is levied by the Grain Handling Authority for the storage and handling of wheat delivered in a particular season. This charge is borne by the growers of New South Wales. In November 1985 the Grain Handling Authority and the Australian Wheat Board entered into a new agreement. The thrust of the new agreement has been to make each party responsible for the costs of its own actions. The Grain Handling Authority and thus the New South Wales growers now bear the major proportion of the expenses relating to receival, storage and shipment of grain from New South Wales. The previous arrangement provided that some of the costs were treated on a "national pooling basis".

The development of the bulk handling system in respect of wheat handling and financial operations during the last six seasons is illustrated in the next table.

Bulk Wheat: Handling System N.S.W. (*Source*: Grain Handling Authority of New South Wales)

Particulars	*Unit of quantity*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Capacity, receivals and stocks							
Capacity of storages *(a)*	'000 tonnes	6,150	6,201	6,201	10,112	12,316	11,951
Wheat received *(b)*	'000 tonnes	2,242	5,258	1,000	8,008	4,960	5,051
Proportion of total crop received in storages	per cent	78.21	88.96	72.00	88.65	88.53	88.18
Carry-over stocks *(c)*	'000 tonne	954	1,400	953	421	3,236	2,538
Finances							
Capital cost of bulk handling system *(c)*	$'000	188,488	199,369	205,026	211,692	221,729	261,197
Receipts from Australian Wheat Board	$'000	27,523	76,418	16,080	131,848	90,472	90,518

(a) Available at the beginning of each season at one filling. *(b)* Excludes N.S.W. wheat handled through Victorian and Queensland storages. *(c)* At end of season.

Wheat Marketing Act

Wheat grown in Australia is marketed under a Government stabilisation plan which is authorised by complementary Commonwealth and State legislation, and which is administered by the Australian Wheat Board. Current legislation for the marketing of wheat is provided for by the Wheat Marketing Act 1984. This Act also provides the legal framework under which the Australian Wheat Board will operate till 30 June 1989. Details of previous legislation relating to stabilisation plans are shown in Year Books Nos. 64, 65 and 70.

The *Wheat Marketing Act 1984* maintains the essential features of previous legislation, including the underwriting of 95 percent of returns on a net basis through the payment of a Guaranteed Minimum Price (G.M.P.) to growers. This Act provides for the establishment of separate G.M.P.'s for different categories of wheat delivered to the Australian Wheat Board. These are calculated by taking the market returns of the lowest two of the three previous years plus an estimate for the subject year, to get an average market return. Estimated pool costs are then deducted to give a net pool return and 95 percent of this figure is taken as the "preliminary" G.M.P. Actual G.M.P. is calculated in February of each year at which time more accurate crop and marketing information is available.

For more information concerning the manner of payments to growers, refer to Year Book No. 70.

Delivery of wheat in New South Wales is made to authorised receivers on behalf of the Australian Wheat Board. The Board has one remuneration agreement for these services with each authorised receiver, which expires in 1989.

Under the Act, wheat is sold domestically in three separate categories — for human consumption, for stockfeed, and for industrial purposes. The human consumption price is an administered price set by averaging export prices for the forward and past quarters and adding a service charge approved by the Minister for Primary Industry. The stockfeed permit system is administered by the Australian Wheat Board and permits are issued to buyers subject to certain Commonwealth and State guidelines. Permit wheat attaches a deduction to cover wheat research tax, the Tasmanian freight levy, administrative costs, and reduced bulk handling charges.

Under current legislation, the Board is empowered to buy and sell currency, wheat and corn futures, and futures contracts and currency contracts for hedging purposes thus providing it with an accepted commercial facility in international grain trading. The Board is also able to establish financial reserves; offer growers optional arrangements for the payment to them of the Guaranteed Minimum Price; transfer residual stocks of wheat from one season's pool to another; re-deliver wheat to contributing growers; and to provide for subsequent adjustment of provisional allowances and charges to individual growers to reflect actual costs and sales realisations for wheat delivered. In addition, the Board may, for the purposes of the more efficient performance of its functions, arrange for the formation of a company or subscribe for, or otherwise acquire shares in a company.

The *Wheat Marketing Act 1984* made some significant changes in relation to export marketing, enabling the Australian Wheat Board to : engage in different forms of wheat sales, namely tripartite barter arrangements and contracts for combination cargoes (wheat and other grains) to be sold and shipped; arrange finance for actual or prospective buyers; and to establish and operate facilities for the handling and storage of wheat outside Australia. The Board also organises shipments of aid wheat on behalf of the Australian Development Assistance Bureau, for Australia's food aid program.

Prices of Wheat and Returns to Growers

The trends in export and domestic prices for Australian wheat and net returns to growers for the last twelve seasons are illustrated in the next table.

Export and Domestic Wheat Prices *(a)* and Returns to Growers, N.S.W. (*Source*: Australian Wheat Board) ($ per tonne)

Season	*Export price (b)*	*Domestic price for human consumption (c)*	*Net return to grower (d)*	*Season*	*Export price (b)*	*Domestic price for human consumption (c)*	*Net return to grower (d)*
1974-75	116.52	83.40	93.20	*1980-81*	r152.05	156.12	148.88
1975-76	106.39	99.32	86.68	*1981-82 (e)*	152.50	187.20	151.64
1976-77	96.54	105.40	69.87	*1982-83*	r179.20	203.46	r178.23
1977-78	116.48	111.16	87.95	*1983-84*	r152.16	219.41	*(f)*150.00
1978-79	137.63	116.61	129.05	*1984-85*	145.32	210.73	*(f)*145.35
1979-80	153.18	130.78	155.77	*1985-86*	127.29	213.89	*(f)*149.87

(a) See text following. *(b)* F.O.B., Simple averages of daily asking prices for A.S.W. From early December 1983, prices were quoted in $US. *(c)* Fixed annually under the terms of the Wheat Marketing Act (f.o.r. terminal ports). *(d)* Average return f.o.r. country rail siding, allowing for cost of bags and including governmental assistance to wheatgrowers. Pool season, generally year ended October (see text below). *(e)* See text on accounting period below. *(f)* Pool not yet finalised.

Prior to 1981-82, the Australian Wheat Board's accounting period was from 1 December to 30 November. Amendments to the Wheat Marketing Act have changed the accounting period, which is now 1 October to 30 September, to align with the wheat season. 1981-82 is a transition period and encompasses the 10 months from 1 December 1981 to 30 September 1982.

The export prices shown in the table are the Board's basic selling prices for A.S.W. bulk wheat, f.o.b., Sydney. From early December 1983, prices are quoted in $US. The domestic prices shown in the table are f.o.r. and include a loading used to meet the costs of shipment of wheat to Tasmania.

The return to wheatgrowers has been estimated on the basis of advances by the Australian Wheat Board. Net returns to wheat growers are dependent on the finalisation of harvest pools (excludes reimbursements from Wheat Export Charges). Finalisation of specific pools may extend over several seasons.

Wheat Pools

Wheat of each harvest received and marketed by the Australian Wheat Board is treated in a separate pool. The wheat received, the amounts paid by the Board on completed pools, and the advances on pools as yet incomplete for recent harvests are shown in the following table.

Australian Wheat Pools (*Source* : Australian Wheat Board)

Particulars	*Unit of quantity*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Wheat received in				
New South Wales *(a)*	'000 tonnes	2,157	5,281	r1,029	8,049	r4,972	5,078
All States	'000 tonnes	10,059	r15,547	r7,887	r21,111	r17,546	15,085
			Advances				
Per tonne *(b)* — Bulk	$	r148.88	r151.64	178.23	*(c)*150.00	*(c)*145.35	*(c)*149.87

(a) A small proportion of N.S.W. wheat is received into the Victorian and Queensland wheat receivals system. *(b)* A.S.W. basis, ex trucks terminal port, prior to deductions for bulk handling, freight, dockage, wheat tax and wheat levies. Additional amounts are paid to Western Australian growers in recognition of the natural freight advantage enjoyed by that State. *(c)* Pool not yet finalised. Further payments may be made.

Consumption of Wheat

The following table shows for the last six seasons the sales of wheat in New South Wales.

Sales of Wheat in New South Wales (*Source*: Australian Wheat Board) ('000 tonnes)

	Period (a)					
Sales for	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Human consumption *(b)*	572	542	730	612	674	703
Stockfeed	538	225	672	101	155	72
Total sales	**1,110**	**767**	**1,402**	**713**	**829**	**775**

(a) For 1981, 1 December to 30 November; 1982, 1 December to 30 September; 1983 and later years 1 October to 30 September — see text in preceding subsection "Prices of Wheat and Returns to Growers" regarding changes to accounting period. *(b)* Includes wheat for industrial purposes.

A proportion of wheat is retained on establishments with agricultural activity from the current harvest for seed, stockfeed purposes, etc. In recent years this has been approximately 5 per cent of the total amount of wheat harvested for grain.

Exports of Wheat

The Australian Wheat Board has the responsibility for marketing wheat for export. The quantity of Australian wheat exported during 1985-86 amounted to 16 million tonnes. The principal commercial markets were the People's Republic of China, Egypt, Iran, U.S.S.R., and Japan.

The quantity of New South Wales wheat and flour exported by the Board in recent seasons is shown below. The quantity of flour has been expressed in its wheat equivalent (1 tonne of flour being taken as equal to 1.29 tonnes of grain).

N.S.W. Exports ('000 tonnes)	*1980-81*	*1981-82(a)*	*1982-83(b)*	*1983-84*	*1984-85*	*1985-86*
Wheat	2,4:115	2,848	821	3,4:131	4,4:168	4,755
Flour	64	65	n.a.	n.a.	n.a.	n.a.
Total exports	**2,479**	**2,913**	**821**	**3,431**	**4,468**	**4,755**

(a) 1 December 1981 to 30 September 1982 (see text in preceding subsection "Prices of Wheat and Returns to Growers" regarding new accounting period). *(b)* For 1982-83 and later years, 1 October to 30 September.

For information on the quantity of New South Wales wheat exported in recent seasons classified by the class and grade of wheat refer to Year Book No. 70.

MAIZE

The area sown with maize has declined considerably since the 1930's, because of comparative increases in returns from alternative grain crops, the high cost of establishing and growing maize, and the special equipment needed for harvesting. Record production of this crop occurred in the 1902-03 season when 91,797 hectares were sown and production was 173,661 tonnes of grain. Average yields have increased due to more intensive growing under irrigated conditions and the almost exclusive use of hybrid varieties. The yield of 4.9 tonnes per hectare in 1985-86 is the highest on record. This compares with an average of about 1.7 tonnes per hectare achieved during the 1930's and 1940's, and a yield of 3.8 tonnes per hectare for the 1984-85 season.

Most maize in coastal districts is sown with hybrid seed, bred and certified by the Department of Agriculture. These hybrids have good resistance to leaf blight which is of major significance on the coast. Inland, mainly early-maturing hybrids developed by commercial seed companies are sown. About half the maize production in New South Wales now comes from the southern inland irrigation districts.

The following table shows the area and production of maize for grain in Statistical Divisions of New South Wales for, the past three seasons.

Maize for Grain: Area and Production in Statistical Divisions

Statistical divisions	*Area sown (hectares)*			*Production (tonnes)*			*Average yield per hectare (tonnes)*		
	1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Sydney	109	94	80	476	310	155	4.37	3.30	1.94
Hunter	813	783	1,290	3,218	2,716	4,824	3.96	3.47	3.74
Illawarra	448	531	442	1,903	2,584	2,356	4.25	4.87	5.33
Richmond-Tweed	427	486	800	1,4:130	1,871	1,991	3.35	3.85	2.49
Mid-North Coast	1,698	1,791	1,179	5,200	5,224	4,879	3.06	2.92	4.14
Northern	3,221	9,187	7,311	12,886	28,336	32,745	4.00	3.08	4.48
North Western	645	2,351	1,753	1,4:195	9,850	8,258	2.32	4.19	4.71
Central West	16	272	273	40	1,398	1,230	2.50	5.14	4.51
South Eastern	61	87	60	229	315	202	3.75	3.62	3.37
Murrumbidgee	3,813	3,368	4,072	28,603	20,045	28,292	7.50	5.95	6.95
Murray	35	334	952	88	1,534	5,153	2.51	4.59	5.41
Far West	—	—	—	—	—	—	—	—	—
Total, N.S.W.	**11,286**	**19,284**	**18,212**	**55,568**	**74,183**	**90,085**	**4.92**	**3.85**	**4.95**

The area of maize for green feed and silage in 1985-86 was 2,698 hectares. This was mainly grown for lot feeding of cattle for beef or milk production. Breakfast food and starch manufacturers purchase large quantities of grain. The local value of maize (for grain) produced in the last six seasons is shown earlier in this chapter in the subdivision "Value of Agricultural Commodities Produced, Crops".

SORGHUM

Sorghum is a summer-growing annual which is more suitable to higher temperature climates and more drought-resistant than maize. Like maize, it is cultivated both for fodder and for grain. The growing of this crop for grain in New South Wales dates from the introduction of dwarf, open-pollinated varieties from the United States in the early 1940's. Hybrids constitute virtually all of the seed now grown.

Grain sorghum can be sown and harvested with the same equipment as for wheat and fits in well with crop rotation on wheat farms. In summer-rainfall areas, grain sorghum is often sown following a failure of the wheat crop, in order to supplement farm income and to meet drought feeding requirements.

In 1983-84, the average yield of sorghum (grain) per hectare (2.76 tonnes) and the total production of sorghum for grain (489,4:180 tonnes) were the highest ever recorded. In 1985-86, the average yield of sorghum (grain) per hectare was 1.87 tonnes and total production of sorghum for grain was 299,266 tonnes.

Almost all of the grain sorghum cultivated under dryland conditions is in the higher rainfall areas of the northern half of the State, but the proportion grown under irrigation (in this area) is increasing. Nearly all the grain sorghum grown in the Lower Murrumbidgee and Central Murray Statistical Sub-divisions is irrigated, which accounts for the high average yields per hectare in that area, as shown in the following table.

Grain Sorghum: Area and Production in Statistical Divisions

Statistical divisions	*Area sown (hectares)*			*Production (tonnes)*			*Average yield per hectare (tonnes)*		
	1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Sydney	—	15	—	—	30	—	—	2.00	—
Hunter	12,081	12,253	12,009	42,102	20,069	25,603	3.48	1.64	2.13
Illawarra	56	—	—	101	—	—	1.80	—	—
Richmond-Tweed	90	51	83	116	87	325	1.29	1.71	3.92
Mid-North Coast	166	55	10	328	74	F	2.83	1.35	—
Northern	145,654	162,201	126,085	379,204	234,840	226,658	2.60	1.45	1.80
North-Western	12,544	17,891	13,581	34,715	23,689	21,381	2.77	1.32	1.57
Central West	1,075	2,876	1,879	2,377	6,144	3,891	2.21	2.14	2.07
South-Eastern	—	—	—	—	—	—	—	—	—
Murrumbidgee	1,923	2,150	2,653	9,000	8,277	9,804	4.68	3.85	3.70
Murray	1,825	1,604	3,326	7,537	6,182	10,704	4.13	3.85	3.22
Far West	2,000	6,800	450	14,000	19,195	900	7.00	2.82	2.00
Total, N.S.W.	**177,414**	**205,896**	**160,076**	**489,480**	**318,587**	**299,266**	**2.76**	**1.55**	**1.87**

F denotes complete failure.

The area sown with forage sorghum in 1985-86 was 11,954 hectares, compared with the average for the 5 seasons ended 1983-84 of 22,065 hectares. The local value of sorghum (for grain) produced in the last six seasons is given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this subdivision.

The Grain Sorghum Marketing Board for the State of New South Wales commenced operations in 1971. It is currently operated by the Scheme Managers, and the elected members of the board constitute a Sorghum Committee, which is responsible for the various regions of New South Wales. The Board is responsible for marketing the New South Wales crop. It operates a system whereby growers have three pricing options: delivering grain sorghum and accepting the price on the day; entering a pre-harvest contract to deliver grain at the daily price at a specified time; and delivering grain which is priced at any time up to three months from the date of delivery. It also operates a licensed merchant system whereby authorised buyers can purchase the grain direct from growers for use on the domestic market. It sets quality standards for the grain it receives.

OATS

Most of the oats grown in New South Wales is for sheep feed (either as grain, hay, or green fodder), and only a relatively small proportion of the grain harvested is milled for human consumption. Most areas sown for grain are also grazed by stock during the growing period. Production of oats for grain in 1983-84 was a record at 1,120,377 tonnes from the 812,578 hectares sown. In 1985-86 production of oats for grain was 538,324 tonnes from 429,071 hectares sown. The following table shows the area and production of oats for grain in recent seasons.

Oats for Grain: Area and Production, in Statistical Divisions

Statistical divisions	*Area sown (hectares)*			*Production (tonnes)*			*Average yield per hectare (tonnes)*		
	1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Sydney	159	114	57	229	86	110	1.44	0.75	1.93
Hunter	6,134	2,627	3,383	7,425	3,152	3,608	1.21	1.20	1.07
Illawarra	167	76	—	144	91	—	0.86	1.20	—
Richmond-Tweed	84	73	96	49	68	84	0.58	0.93	0.88
Mid-North Coast	54	49	220	57	83	24	1.06	1.69	0.11
Northern	40,288	16,184	24,066	42,635	17,660	25,381	1.06	1.09	1.05
North-Western	167,870	59,938	84,497	217,777	65,045	86,769	1.30	1.09	1.03
Central West	267,912	86,732	123,817	377,114	106,693	142,132	1.41	1.23	1.15
South-Eastern	63,608	24,098	33,534	89,438	31,308	51,278	1.41	1.30	1.53
Murrumbidgee	176,055	72,540	107,056	255,089	106,080	148,892	1.45	1.46	1.39
Murray	90,183	49,256	52,195	130,331	71,522	79,667	1.45	1.45	1.53
Far West	64	—	150	90	—	380	1.41	—	2.53
Total, N.S.W.	**812,578**	**311,687**	**429,071**	**1,120,377**	**401,787**	**538,324**	**1.38**	**1.29**	**1.25**

In 1985-86, the area of oats sown for green fodder was 250,974 hectares compared to the average for the 5 seasons ended 1984-85 of 315,084 hectares. Details of oats sown for hay, and hay production, in the last 6 seasons are given at the end of this section. Details of the local value of oats (for grain and hay) produced in the last 6 seasons are given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this division.

The principal varieties of oats sown are Cooba (a variety noted for its prolonged grazing quality) and Coolabah (a variety which provides early grazing and good grain recovery). These varieties accounted for 37 per cent and 35 per cent respectively of the total area of oats sown in New South Wales in 1985-86.

The Oats Marketing Board for the State of New South Wales is responsible for marketing the oat grain crop; acquisition powers are vested in the Board under the Marketing of Primary Products Act 1983 (see later Subsection on this Act). A high proportion of oats produced is utilised domestically. It is either stored on farm for winter use, or traded, usually through authorised buyers. A voluntary pool for grain surplus to these needs is conducted at harvest and virtually all the receivals are exported in bulk, utilising the facilities of the N.S.W. Grain Handling Authority. Authorised buyers are licensed by the Board and mainly handle the domestic trade.

BARLEY

Demand for barley for stock feed, and to a lesser extent for malting, has increased steadily during the last 10 seasons. The two-row varieties can be used for both malting or stock feed purposes but the six-row varieties are only suitable for stock feed. Farmers have been encouraged by marketing and governmental bodies to sow the dual purpose two-row varieties to provide farmers with marketing options.

In 1983-84 both the total area and production of barley sown for grain (941,131 tonnes from 554,153 hectares sown) were the highest ever recorded. In 1985-86, production of barley for grain was 821,394 tonnes from 546,223 hectares sown. The next table shows the total area and production of barley for grain in the last ten seasons. Of the total area sown to barley for all purposes in 1985-86, 85 per cent was two-row barley for grain, 9 per cent six-row barley for grain, and 0.3 per cent for hay (1,451 hectares) and green feed and silage (31,254 hectares). The production of hay in 1985-86 was 3,382 tonnes.

Barley for Grain: Area and Production, N.S.W.

	Area sown (hectares)		*Production (tonnes)*		*Average yield per hectare (tonnes)*	
Season	*2-row*	*6-row*	*2-row*	*6-row*	*2-row*	*6-row*
1976-77	343,848	73,218	465,478	105,801	1.35	1.45
1977-78	430,968	54,608	395,333	50,660	0.92	0.93
1978-79	414,291	53,347	602,881	73,056	1.46	1.37
1979-80	401,960	43,235	621,966	64,364	1.55	1.49
1980-81	408,957	46,524	363,266	50,059	0.89	1.08
1981-82	487,663	52,304	686,287	80,075	1.41	1.53
1982-83	344,572	41,983	164,308	25,090	0.48	0.60
1983-84	473,308	80,845	809,577	131,554	1.71	1.63
1984-85	536,557	68,258	814,665	100,309	1.52	1.47
1985-86	493,565	52,658	748,962	72,431	1.52	1.38

The Barley Marketing Board for the State of New South Wales, controls the marketing of the State's barley crop. From the 1975-76 season, the Board has acquired the malting barley crop each year, mainly to service its domestic customers (maltsters and breweries). While feed barley growers are required to deliver their grain to the Board's pool they may, under certain circumstances, sell to licensed merchants. The Board also owns substantial storage facilities throughout the State to augment the storage system of the N.S.W. Grain Handling Authority.

RICE

Rice production in the State is undertaken in three main areas: the Murrumbidgee Irrigation Area (M.I.A.), the Coleambally Irrigation Area (C.I.A.), and the Murray Valley Irrigation District. Rice was first cultivated on a commercial basis in New South Wales in 1924-25.

In the 1985-86 season, approximately 26 per cent of the total rice production in the New South Wales was of the long-grained Pelde variety and the balance was mainly of the medium-grained Calrose variety. In the Murray Valley Irrigation District almost all of the production was of the medium-grained Calrose variety. In both the M.I.A. and the Murray Valley Irrigation District, small quantities of the new semi-dwarf strained variety (M7) were also grown.

Over 96 per cent of the Australian rice crop is grown in New South Wales. The amount of water available, and the fact that the intensive use of water for rice growing in certain areas is injurious to adjacent establishments, makes it necessary to limit the area of rice sown in each season. An agricultural research station is maintained by the Department of Agriculture at Yanco, where plant breeding, seed selection, and general experimental work are undertaken. Investigations are also conducted on establishments throughout the rice-growing areas.

The area and production of New South Wales grown rice and the exports of rice from Australia since 1975-76 are illustrated in the next table. The largest area planted with rice, 117,780 hectares in 1984-85, also yielded the record production of 845,119 tonnes, although the greatest average yield per hectare (7.62 tonnes) was attained in the 1968-69 season.

Rice: Area and Production, N.S.W.; Exports from Australia

Season	Area sown (hectares)	Production of paddy rice (tonnes)		Exports (a) from Australia	
		Total	Average yield per hectare	Quantity (tonnes)	Value ($A thous. f.o.b.)
1975-76	72,150	408,267	5.66	217,678	51,353
1976-77	89,201	518,960	5.82	256,477	57,148
1977-78	88,397	476,312	5.39	277,459	66,634
1978-79	105,864	674,440	6.37	241,236	66,151
1979-80	110,431	585,980	5.31	457,295	129,928
1980-81	98,824	703,530	7.12	281,342	99,898
1981-82	117,607	828,944	7.05	596,516	195,423
1982-83	79,821	525,488	6.58	404,884	120,257
1983-84	114,627	610,551	5.33	245,592	91,949
1984-85	117,780	845,119	7.18	317,272	112,957
1985-86	102,994	702,073	6.82	179,663	77,037

(a) Mainly processed in some form: husks or husk and bran removed which reduces weight (by approximately 30 per cent).

In 1985-86 the major importers of Australian rice were Papua New Guinea, Hong Kong, the Middle East and the Pacific Islands. Generally, over 90 per cent of New South Wales rice production is exported, the great bulk of it in milled form. Details of the local value of rice produced in the last 6 seasons is given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this chapter. The average f.i.s. (free into store) selling price of rice to millers, was $131.60 per tonne in 1985-86.

The Rice Marketing Board for the State of New South Wales and the Rice Growers Co-operative Mills are responsible for the receipt, storage, and disposal of paddy rice on an annual crop pool basis.

For 1982-83 to 1985-86, the Rice Marketing Board recorded deliveries from the three main areas as follows:

Season	Receivals ('000 tonnes) M.I.A.	C.I.A.	Murray Valley. Irrigation District	Total receivals(a)
1982-83	233	122	143	498
1983-84	249	109	255	613
1984-85	293	161	390	844
1985-86	263	138	274	674

(a) The total receivals recorded by the Board are marginally different to the total production recorded in the Agricultural Census because of differing reporting and collection methodologies.

SUGARCANE

The great bulk of Australian sugarcane is grown in Queensland but its cultivation is an important agricultural activity on the far north coast of New South Wales. The cane-fields in New South Wales are confined to the flats of the Tweed, Clarence, and Richmond Rivers, where suitable soil, good drainage, adequate rainfall, and reasonable freedom from frost, are found. Historically, another factor was the cheap transport by river barges of this bulky crop to the sugar mills. Although road and rail transport have now replaced river barges, transport costs are still an important factor and cane fields are generally limited to within 30 kilometres of the existing sugar mills.

In New South Wales, the most usual month of planting sugarcane is September. Up to three crops may be harvested from a single planting, the plants being replaced every fifth or sixth year. Harvesting, which takes place between July and December, is now entirely mechanised with most crops in New South Wales being harvested after two seasons' growth.

The New South Wales Sugar Milling Co-operative Ltd. operates three conveniently located mills to crush the cane. The area of cane cut is limited by the handling capacities of the mills and quotas are imposed on growers for the supply of cane for crushing.

The area and production of sugarcane in New South Wales in 1975-76 and for the latest six seasons are shown in the following table.

Sugarcane: Area and Production, N.S.W.

Sugarcane	*1975-76*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Area (hectares) —							
Cut for crushing	11,010	14,018	14,286	15,980	15,182	14,869	15,341
Not cut *(a)*	8,256	9,456	10,934	10,592	11,954	11,649	10,558
Total (b)	*19,266*	*23,474*	*25,220*	*26,571*	*27,135*	*26,518*	*25,899*
Production of cane (tonnes)	889,677	1,435,287	1,505,907	1,702,342	1,468,392	1,540,456	1,398,183
Average yield per hectare cut (tonnes)	80.81	102.39	105.41	106.53	96.72	103.6	91.14

(a) Stand-over and newly-planted cane. *(b)* Excludes the small areas cut for plants.

Production of sugarcane in New South Wales reached a record 1,702,342 in 1982-83, when the total area of sugarcane (excluding areas cut for plants) was a record 26,571 hectares. For 1985-86 production of sugarcane in New South Wales was 1,398,183 tonnes with total area of sugarcane (excluding areas cut for plants) of 25,899 hectares. The average yield of cane per hectare varies considerably from season to season; it depends partly upon seasonal conditions, cultivation methods, the variety of cane, and especially upon the maturity of the cane. The local value of sugarcane produced in the last six seasons is shown in the subdivision "Value of Agricultural Commodities Produced, Crops" earlier in this chapter.

The Sugar Board, acting for the Queensland Government, arranges for the domestic refining of raw sugar and for the local and overseas marketing of sugar. The proceeds of domestic and export sales, less transport and administrative costs, are pooled, and the Board pays the mills an average net realisation price in respect of the raw sugar delivered to the Queensland Government each season. The mills retain approximately one-third of the net realisations, the balance being distributed among the canegrowers.

COTTON

Cotton-growing in Australia was, for many years, restricted almost entirely to Queensland, and the quantity produced represented only a small proportion of Australia's annual consumption of raw cotton. In the 1960's, however, there was a rapid increase in the area sown to cotton in New South Wales, the area increasing from 39 hectares in 1959-60 to 131,237 hectares in 1984-85. New South Wales now accounts for about 78 per cent of Australia's raw cotton production. Australian production more than satisfies local demand for shorter and medium staple cottons but some longer staple cotton is still imported for use in combed yarns. In 1985-86, 202,797,080 kilograms of cotton produced in New South Wales, was exported for a value of $313m; of this 191,945,258 kilograms was exported as cotton (other than linters) not carded nor combed.

Most cotton grown in New South Wales is cultivated on irrigated land. The main area in which it is grown is in the North Central Plain and Macquarie-Barwon Statistical Subdivisions along the Namoi, Gwydir, Macintyre, Barwon, Darling and Macquarie Rivers. This area produces more than 91 per cent of the State's output. In 1985-86 there were 12 gins in the cotton growing areas.

The area and production of cotton in New South Wales in recent seasons are shown in the following table.

Cotton: Area and Production, N.S.W.

Statistical agricultural area	*Area sown (hectares)*			*Production of seed cotton ('000 kg)*			*Average yield per hectare (kg)*		
	1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Northern	85,270	108,081	113,365	242,923	441,661	450,665	2,849	4,086	3,975
North Western	19,253	23,156	22,215	49,521	92,379	89,750	2,572	3,989	4,040
Central West	—	—	240	—	—	1,336	—	—	5,569
Total, N.S.W.	**104,523**	**131,237**	**135,820**	**292,444**	**534,039**	**541,751**	**2,798**	**4,069**	**3,989**

The local value of cotton produced in the same period is given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this chapter.

OILSEEDS

Sporadic attempts at oilseed production were made prior to World War II, but it was not until 1947 that commercial linseed growing was established in New South Wales.

The imposition of wheat delivery quotas in 1969-70 and the low wool and sheep-meat prices of the 1970-71 period caused agricultural producers to examine alternative sources of income. As a result, the area sown to oilseeds in New South Wales in the early 1970's increased rapidly but subsequently declined owing to the relaxation of wheat quotas, poor seasonal conditions, and low yields. Areas sown to oilseeds continue to be influenced by the relative profitability of oilseeds and competing crops, principally wheat.

The principal oilseed crops are sunflower, safflower, soybeans, rapeseed and linseed. Oil, for both industrial and edible purposes, is also derived from the kernel of the cotton seed which is obtained as a by-product from ginning cotton. The development of oilseed production in New South Wales is illustrated in the following table.

Oilseeds (Excluding Cotton), N.S.W.

Season	*Sunflower*	*Rapeseed*	*Linseed*	*Safflower*	*Soybeans*
		Area (hectares)			
1978-79	72,098	5,487	3,686	32,220	17,082
1979-80	42,969	20,731	5,021	39,639	21,710
1980-81	35,608	9,735	2,769	7,497	10,075
1981-82	30,957	3,706	928	16,866	13,973
1982-83	53,173	4,589	1,322	5,543	13,365
1983-84	75,101	9,084	1,581	20,592	17,249
1984-85	145,405	15,551	1,617	14,369	24,789
1985-86	112,894	39,776	4,286	17,908	32,245
		Production (tonnes)			
1978-79	43,062	5,600	2,810	22,000	33,370
1979-80	26,606	18,555	3,140	25,962	39,857
1980-81	19,118	4,742	1,315	2,239	19,988
1981-82	27,392	2,515	550	8,564	26,337
1982-83	28,345	2,089	407	2,474	14,231
1983-84	54,740	8,121	1,144	6,080	28,492
1984-85	115,084	16,307	1,088	7,495	44,990
1985-86	98,869	46,165	3,452	8,201	51,392
		Average yield per hectare (tonnes)			
1978-79	0.60	1.02	0.76	0.68	1.95
1979-80	0.62	0.90	0.63	0.65	1.84
1980-81	0.54	0.49	0.47	0.30	1.98
1981-82	0.88	0.68	0.59	0.51	1.88
1982-83	0.53	0.46	0.31	0.45	1.06
1983-84	0.73	0.89	0.72	0.30	1.65
1984-85	0.79	1.05	0.67	0.52	1.81
1985-86	0.88	1.16	0.31	0.46	1.59

The local value of oilseed production in the last six seasons is given in the subdivision "Value of Agricultural Commodities Produced, Crops" earlier in this chapter.

Linseed oil is produced for industrial purposes (e.g. for use in the surface coating industries and for technical inks). *Rapeseed oil* is used primarily as an edible oil for blending purposes in a wide range of food products following the production of only low erucic acid content oil. *Safflower and sunflower oils* are classified as semi-drying oils which find particular acceptance for edible purposes in poly-unsaturated products, such as margarine, because of their high linoleic fatty acid content. They are also valuable for industrial purposes, more so because of their non-yellowing characteristics in white coloured surface coatings. *Soybean and cotton* are also semi-drying oils but have a lower linoleic fatty acid content than safflower and sunflower. They are used for edible purposes, but in Australia, soybean is widely used in industrial processes.

All oilseeds produce protein meals as a residue from crushing. These are widely used for livestock feeding. Soybean meal is the most valued.

With the exception of most soybean, limited sunflower and rapeseed, oilseed cultivation is almost entirely a dryland farming operation. The majority of oilseed crops are grown in the Northern Slopes, Central Macquarie, North Central Plain and Macquarie-Barwon Statistical Subdivisions. Rapeseed is also grown in the Lachlan, Central Murrumbidgee and Upper Murray Statistical Subdivisions, sunflowers are grown under irrigation in the Lower Murrumbidgee and Central Murray Statistical Subdivisions and soybeans are being widely grown as a rain-grown crop in the Richmond-Tweed and Mid-North Coast Divisions.

TOBACCO

The principal tobacco-growing districts in the State are the Northern Tablelands, Northern Slopes and Central Macquarie Statistical Subdivisions. The local value of tobacco produced in the last six seasons is given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this chapter. The cultivation of tobacco leaf in recent seasons is illustrated in the next table.

Tobacco: Area and Production, N.S.W.

Statistical divisions	*Area (hectares)*			*Production ('000 kg) (a)*			*Average yield per hectare ('000 kg) (a)*		
	1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Richmond-Tweed	48	51	21	93	100	1	1.93	1.97	2.90
Northern	382	266	185	702	550	415	1.84	2.07	2.24
Murray	47	27	27	93	69	61	1.97	2.55	2.26
Total, N.S.W.	**477**	**344**	**233**	**887**	**720**	**477**	**1.86**	**2.09**	**2.05**

(a) Cured leaf.

The N.S.W. Department of Agriculture operates an advisory service to assist tobacco growers. The expenditure on these services is almost wholly derived from the Tobacco Industry Trust Fund, maintained from levies paid by tobacco growers and manufacturers and from contributions by the Commonwealth Government and the States where tobacco is grown.

The tobacco industry has a highly protective tariff. Australian manufacturers of cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf if the imported leaf is blended with a prescribed minimum percentage of Australian leaf (50 per cent since 1966).

The Commonwealth Government and the tobacco-producing States operate a stabilisation scheme for the tobacco-growing industry. The scheme established an Australian Tobacco Board (representative of the Commonwealth Government, the producing States, growers, and manufacturers), and provides for an annual marketing quota of leaf which is sold under an agreed grade and price schedule providing for an average minimum price based on a normal crop fall-out, and for the overall quota to be divided among the States and, in turn, among individual growers. A Tobacco Leaf Marketing Board administers the scheme in New South Wales. Under the various Tobacco Charge Acts of 1955 (as amended), levies are imposed on growers and manufacturers of tobacco. The proceeds of these levies are used to fund the operations of the Australian Tobacco Board, and to promote tobacco research, which is undertaken by the Tobacco Research Council.

FRUIT AND VEGETABLES

Fruit

With the climate ranging from relative cold on the highlands to semi-tropical heat on the north coast, a large variety of fruits can be grown within New South Wales.

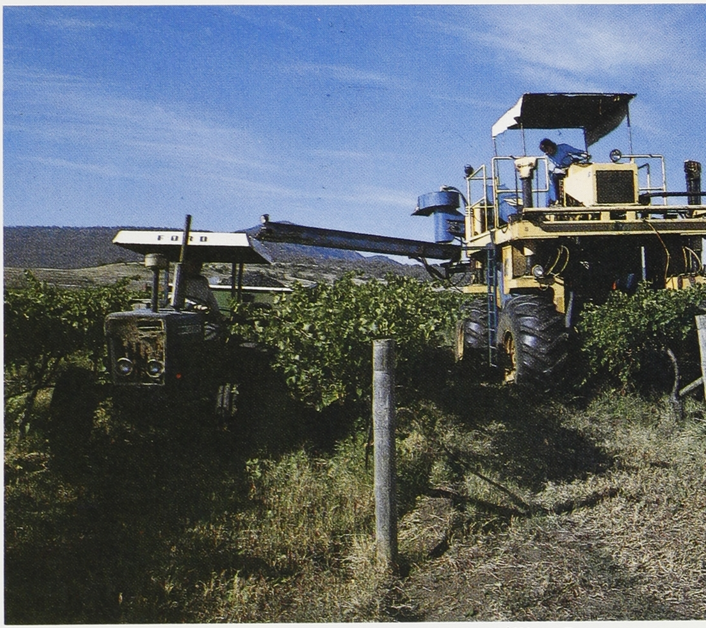
Grapes

Climate and soils are the most important factors determining the location of vineyards. Grapes are essentially a dry climate crop although the minimum rainfall required varies with the availability of irrigation. Long warm-to-hot summers and cool winters, together with fertile, well drained soils, provide the best conditions. Winter and spring rainfalls are preferred with summer and autumn rains causing losses during harvest and drying periods. The most important viticultural districts are the Hunter Valley and Mudgee regions, for wine grapes, and the irrigation areas in Wentworth Shire (N.S.W. Sunraysia), for drying and wine grapes, and the Murrumbidgee Irrigation Area, for wine grapes.

Department of Water Resources

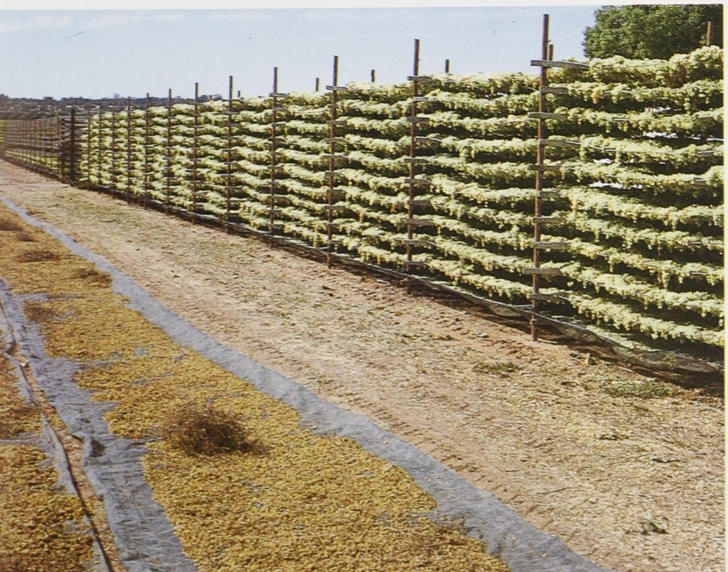
Left: Grape-growing, Mudgee. Australian vineyards were started in New South Wales in the 1820's, at Brush Farm by Gregory Blaxland and at Camden Park by John Macarthur; in the 1840's, they expanded to the Hunter Valley. Viticulture, however, did not become a practicable occupation, as four years were needed before effective results were achieved. In addition, wine-making was a specialist industry, needing extensive capital and expert knowledge. In the 1890's, small holders on irrigation lands began to grow grapes for the dried fruits and associated industries. The wine industry, however, remained relatively small-scale up to the 1960's. Since then, it has undergone many changes including increased consumption and larger wine companies. In New South Wales, the most important viticultural districts for wine grapes are the Murrumbidgee Irrigation Area and the Hunter Valley and Mudgee regions, and for drying and wine grapes, the irrigation areas in Wentworth Shire (N.S.W. Sunraysia).

Right: Mechanical harvesting of wine grapes, Murrumbidgee Irrigation Area. Most wine grapes are mechanically harvested, the larger vineyards using their own harvesters and the smaller concerns calling in contractors who are equipped with mechanical harvesters. Such machines are self-propelled and work in various ways upon the vine, trellis or trunk. Generally they are used in combination with a tractor and bins to transport the grapes. In 1985-86, the State's principal wine-making varieties produced were Semillon (31,958 tonnes), Trebbiano (19,636 tonnes), Gordo Blanco (18,442 tonnes), and Shiraz (17,400 tonnes). Most Australian wines are sold on the domestic market and only a small percentage of the total production is exported. Multi-purpose grape varieties have also been developed in order to meet fluctuations in demands for grapes for specific purposes. The Wine Grapes Marketing Board, operating in Leeton, Griffith, Carrathool and Murrumbidgee Shires, functions as a negotiating body between local growers and the winemakers.



Department of Water Resources

Department of Water Resources



Left: Sultanas drying, Dareton. The sultanas in this photograph are being dried on racks and on plastic sheeting on the ground. Other dried fruits produced in the State include currants, raisins and prunes. While wine grapes are harvested as soon as the desirable sugar acid ratio is reached, grapes for drying are harvested when fully ripe. In New South Wales, the main regions of production are in the irrigation areas associated with the Murray and Murrumbidgee Rivers. The marketing and quality control of dried fruits in New South Wales is regulated by the New South Wales Dried Fruits Board, which supervises packing houses to ensure that dried fruits are hygienically processed and packed. There are nine registered packing houses in New South Wales, one in Sydney, three in the Murrumbidgee Irrigation Areas, three at Young and two on the Murray River at Dareton.

Left: Cotton harvesting, Wee Waa. Australian cotton-growing was once restricted almost solely to Queensland but, since the 1960's, the area under cultivation in New South Wales has dramatically increased — from 39 hectares in 1959-1960 to 135,800 hectares in 1985-86. Over 75 per cent of Australia's raw cotton is now produced in New South Wales, mostly on irrigated land. The main growing area (91 per cent of the State's output) is in the Northern Plains area, along the Rivers Namoi, Gwydir, Macintyre, Barwon and Macquarie. In the Namoi Valley (featured in the photographs), cotton-growing received its impetus following completion of the Keepit Dam in 1958, and the Namoi Cotton Co-operative Ltd. was formed in 1962. In 1963, the first gin was opened at Wee Waa. Others are located at Merah North, Myall Vale, Yarraman and Ashley (in the Gwydir Valley).

Department of Water Resources

Department of Water Resources

Right: Cotton harvesting, Wee Waa. While over thirty species of cotton are on record, only four have been cultivated commercially, namely, those seeds bearing lint (long, convoluted hair or cotton fibre) which is easily removed and spun into cotton. The American type known as "American Upland Cotton", which comprises the bulk of the world's cotton production, is the only one grown in Australia. At harvest-time, when sixty to seventy per cent of the bolls (fruit) have opened, the cotton plant is usually defoliated by the application of chemicals. After the leaves are shed, harvesters are then used to pick the crop. Two pickings are usually made, one about two weeks after defoliation and a second after the remaining bolls have ripened. Cotton is usually planted in October, ripens in March and April, and is harvested through to June.

Department of Water Resources

Left: Cotton gin, Wee Waa. The several components of the cotton plant are put to a variety of uses. Once harvested, the cotton seeds are subjected to a process called ginning (pictured), which removes the lint from the seeds. The long fibres are then used for making thread, while the short fibres (fuzz) remaining on the seed are later removed and used as padding for upholstery. The seed is subsequently processed for cottonseed oil and cottonseed meal, cottonseed having proved a valuable by-product of the industry. High capacity gins have been erected throughout the cotton areas of the State and, over time, the quality of processed cotton has improved markedly. As with wheat-farming, the cotton industry has now become capital-intensive: there is an increased emphasis on mechanisation, sophisticated irrigation methods, continuing research, plant disease control, crop rotation, and the computer-aligned pest control system known as 'Siratac'.

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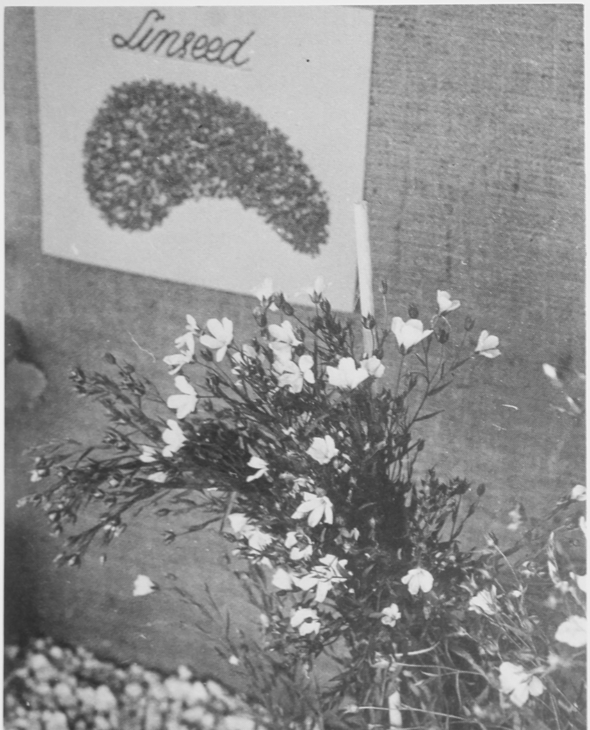
Left: Output of the Namoi Cotton Growers' Co-operative, Wee Waa, 1965. These processed bales are awaiting shipment to cotton-spinning mills in other parts of Australia. In 1965, forty-five per cent of the cotton was middling quality and ten per cent was below middling. At present, Australian growers supply all requirements of the local spinning industry for medium staple cotton, such needs having averaged out at about 100,000 bales per year. Jeans, shirts, underwear, sheets and towelling are examples of cotton goods produced. In recent years, exports of raw cotton have increased to South-East Asian markets, notably to Japan, Korea, Taiwan and Indonesia. In 1985-86, almost 200 million kilograms of cotton produced in New South Wales was exported for a value of just over $300 million, of which nearly all was exported as cotton (not carded nor combed).

Promotion Australia

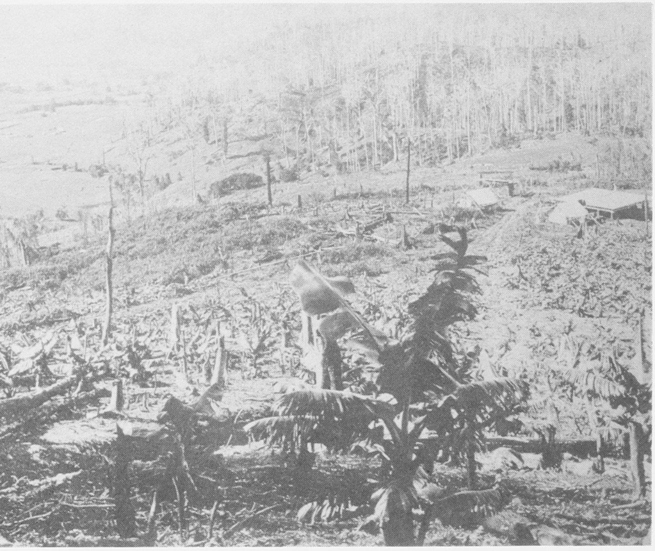
Below: Linseed is one of the specialist oilseed crops grown in New South Wales, the others being sunflower, soy bean, rapeseed, safflower. The majority of oilseed crops in the State are grown on the Northern Slopes and the Northern Plains. Oil, for both edible and industrial purposes, is also derived from the kernel of the cottonseed, and is obtained as a by-product from ginning cotton. In particular, linseed oil is used in the manufacture of paints, varnishes and technical inks. In recent years, however, there has been a decline in linseed production for industrial uses, the emphasis shifting to sunflower and soybean for food. The comparative profitability of competing crops, especially wheat, influences the area sown to oilseeds. The Oilseeds Marketing Board handles marketing arrangements for oilseeds in the State.



Promotion Australia

"The Land Newspaper"

Above: Harvesting sorghum at Curlewis, west of Tamworth, April 1984. There are three ways in which sorghum can be used: grain sorghum for grain; sweet or fodder sorghum, sudan grass and columbus grass for silage, green feed and grazing; and broom millet for brooms and brushware. In regard to area sown, grain sorghum is the most important of Australian summer cereals and, in New South Wales, is concentrated on the Northern and North-Western Slopes and Plains areas. The main use of the grain is for stockfeed and as a supplement to other coarse grains, but there are also some wax-grained types which give a starch extract for use in human food products, particularly in canned goods. Sorghum for grain has been grown in New South Wales since the early 1940's, but its production has accelerated in the last two decades, with substantial increases in exports.



Left: Clearing land on returned soldier settlements — a young banana plantation at Mullumbimby. In 1905, the Closer Settlement Acts had provided that private land and long-term leases might be acquired by the Crown in certain circumstances, to provide for new holdings and for additions to existing holdings. After World War I, under the Returned Soldiers' Settlement Acts, provision was made for the settlement of soldiers on Crown Lands, including the Murrumbidgee Irrigation Areas, and on lands acquired under the Closer Settlement Acts. Similarly, between 1945 and 1960, all land acquired for closer settlement was allotted to ex-servicemen of the Second World War and the Korea and Malaya operations. In this latter period, however, the Commonwealth and State Governments attempted to avoid mistakes made after the First World War — holdings were made bigger in order to maintain the settler adequately, and more attention was paid to capital and financial agreements, and to the selection of applicants.

Archives Office of N.S.W.

Right: Reaping the Murrumbidgee Irrigation Area's rice crop, 1959. As with wheat, most rice grown in New South Wales is now bulk handled, although some is still bagged for certain requirements. Today, diesel-driven tractors draw large capacity trailers through the fields while the auger arm of the the harvester continuously fills them. When full, the trailers convey the rice from harvester to bulk-load trucks waiting nearby. In New South Wales, the Rice Marketing Board is responsible for receipt of the bulk grain, its placement in aerated storage and its subsequent sale to the Ricegrowers' Co-operative Mills Ltd. which then mills and markets the finished product. Rice was first cultivated commercially in southern New South Wales in 1924-25. The industry expanded and rice production in this State is now undertaken in three main areas: the Murrumbidgee Irrigation Area, the Coleambally Irrigation Area and the Murray Valley Irrigation District.

Promotion Australia

Left: Carrot harvesting in Griffith, 1980's. In New South Wales, carrots are grown mainly in Griffith Shire, in the irrigation areas of the Southern Plains. In 1914, planners of the Murrumbidgee Irrigation Area (M.I.A.) included designs for two large towns, Griffith and Leeton, both of which were designed by Walter Burley-Griffin. Griffith has grown into an important regional centre, particularly after 1945. Originally, the towns were surrounded with various-sized farms arranged in concentric rings. The smallest farms were horticultural and one hectare in size, being established nearest the town for ease of access. Fruit farms of four hectares were placed next and, in the outer ring, there were dairy farms of eight to twenty hectares, later forty hectares. The M.I.A., however, has not experienced great success with dairying; instead, it has become a producer of pears, stone and citrus fruits, vegetables and rice.

N.S.W. Department of Agriculture

Archives Office of N.S.W.

Soldier settlers growing vegetables in Batlow (above) and picking fruit at Clinton Soldiers' Settlement (below). Although land settlement for soldiers was approached much more cautiously after the Second World War compared with the First, the method of settlement under the War Service Land Settlement Agreement remained the same. This involved the acquisition of single unit farms, the subdivision of large, fairly developed properties, and the commitment to developmental projects, for example, the establishment of new irrigation areas and the enlargement of areas already in existence. Capital and adequate advances with low rates of interest were made available to soldier settlers. Those granted holdings were allowed twelve months' assistance in the form of a non-repayable living allowance and freedom from rent or interest payments on advances. The viability of each holding, especially in regard to the estimated return from the holding over a long-term period, was carefully considered. Where necessary, the Commonwealth Government undertook the training of applicants. The farms were allotted as Closer Settlement Leases (perpetual), Irrigation Farm Leases (perpetual) or Western Lands Leases in perpetuity. The two main methods of settlement in operation were "ballot" or "promotion". Under the "ballot or acquisition" method, the state divided the land into farms of sufficient size, advertised the farms as available for application, and allotted them to qualified ex-servicemen by way of ballot, conducted by the War Service Land Settlement Board. Under the "promotion" method, the Crown purchased the property, subdivided the land into farms, and vested the titles of the farms in the applicants.

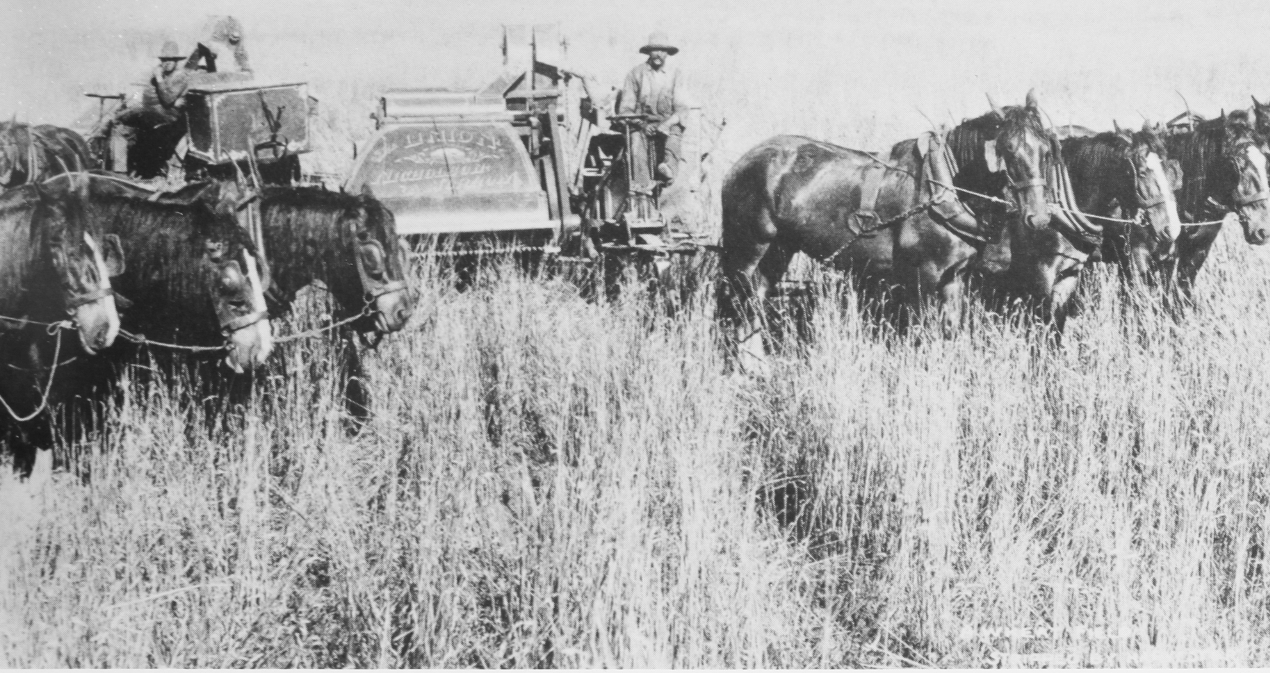
Archives Office of N.S.W.

Promotion Australia

Sugarcane cutting, Maclean, New South Wales. Before mechanisation, cane-cutting was a difficult and dirty task. To facilitate cutting and to destroy parasites, the heavy undergrowth needed to be burnt off and this covered the cane with soot. A broad hooked, razor sharp knife was then used to slash and lop the cane, and strip off the "trash" (the outer growth). Today all cane produced in Australia is harvested mechanically by the chopper harvester, a Queensland invention. This cuts the cane stalk at ground level, chopping it into billets, 200 to 300 mm in length. The chopped cane is loaded into a container drawn alongside the harvester, the extraneous matter (mainly tops, leaves and trash) being extracted by air pressure. Mills then crush the cane and manufacture raw sugar from its juice. In New South Wales, the canefields are restricted to the flats of the Tweed, Clarence and Richmond Rivers, on the far north coast.

Display of rural produce and crafts, 1890's. By the end of the nineteenth century, the fear, widely current in the 1850's, that Australia would become "a sheep walk" forever, had evaporated. Many other agricultural industries, such as wheat, sugar and dairying, were supplementing wool in the national income. At the same time, hundreds of country towns were now scattered throughout the State's farming districts. As selectors became more established, they looked for ways to improve their crops and methods, and to communicate with one another; district displays of rural produce were an interesting and convenient means of comparing standards. They also gave a convincing illustration of which varieties of crops might best suit particular districts. In the display pictured, wide-ranging aspects of life on the land have been incorporated — besides the vegetables, fruit and grains, the varied items include the study of an Aboriginal warrior and a selection of graded horseshoes.

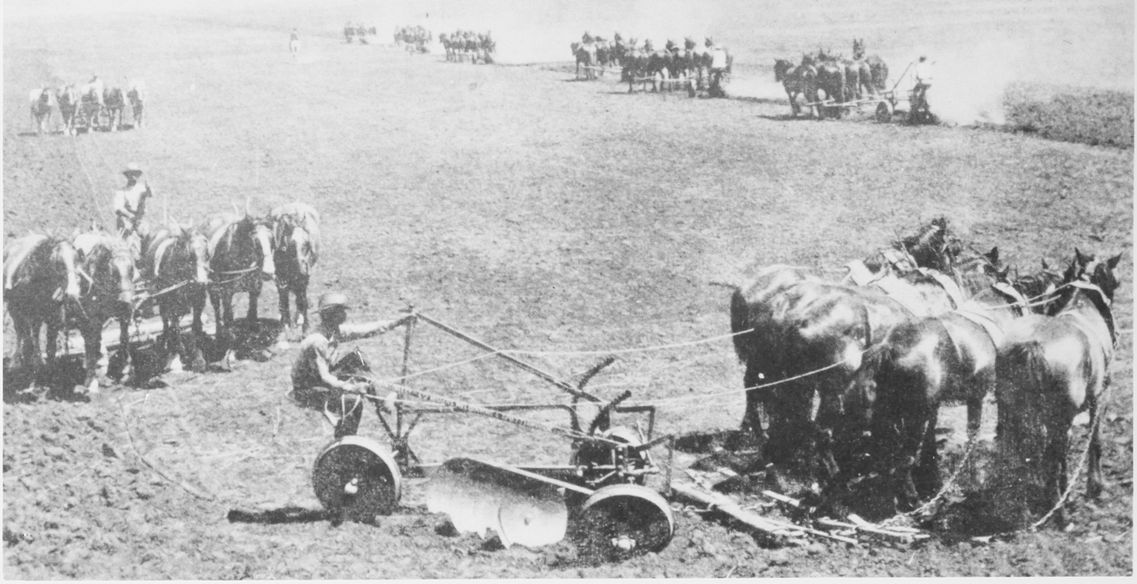
Archives Office of N.S.W.



Mitchell Library, State Library of New South Wales

A wheat field stripped by harvester (above) and a modern header (below). In the early days of the industry, wheat farming required much costly manual labour so that, in the 1840's and 1850's, Australia was forced to import grain. The latter decades of the nineteenth century saw the invention of many urgently needed new machines introduced for each step in the process of growing wheat. Firstly, the plough — particularly the multiple disc ploughs — improved the farmer's method of breaking up and furrowing the ground. Secondly, steam was used to supplement horse power. Thirdly, sowing machines began their slowly improving evolution. Finally, early machines for harvesting gave way to the "combine harvester" which would combine into one operation the three distinct stages of reaping the heads of grain, threshing them to remove the stalks, and winnowing the grain from the chaff. One of the earliest combines was invented by Joseph Nicholson (note brand name in top photograph) who was awarded a gold medal at the Melbourne Exhibition of 1880 for his harvester which both stripped and winnowed the grain. In 1884, Hugh McKay improved on this with his stripper-thresher-winnower, which stripped and cleaned the wheat and poured it into bags sewn by a following worker. The remaining wheat stalks were then forked into huge stacks and stored for winter stock feed. Today, modern header harvesters, like the Massey Ferguson model in the photograph below, load the threshed and winnowed grain straight into large storage bins and, from these, the header unloads the grain into a waiting truck. Modern headers can harvest a great variety of seed under various field and crop conditions. The advances of technology greatly reduced the cost of labour, but ironically only aided those who possessed the necessary capital and extra land required — a new harvester today costs at least $150,000.

Grain Handling Authority of N.S.W.

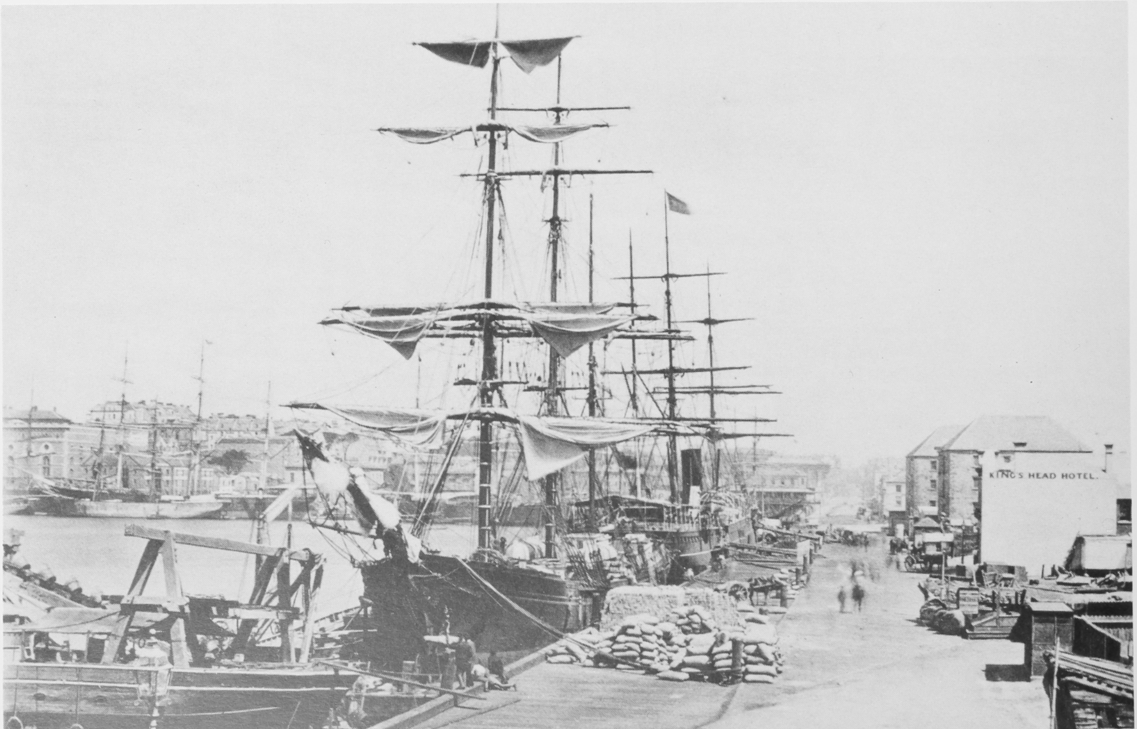


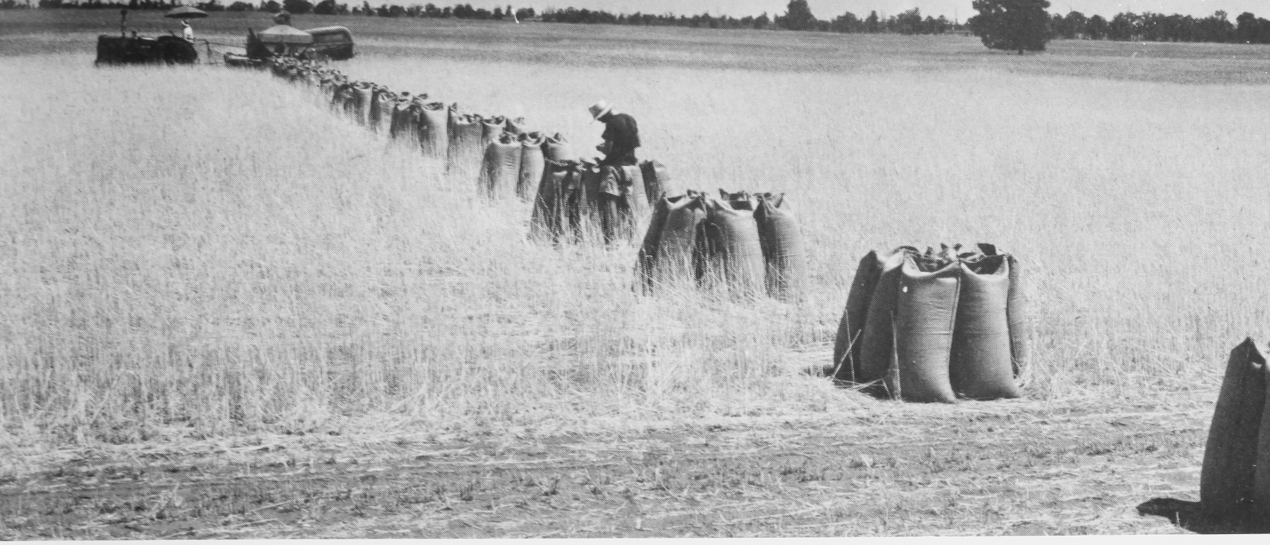
"The Official Year Book of New South Wales", 1904-5

Disc ploughs (about 1904). By 1904, considerable advances in farm mechanisation had been made, but many farmers had insufficient capital at hand and so, in many quarters, old methods and implements lingered on. In 1876, W.J.Clarke had introduced his steam plough which could achieve a daily breakup of eight acres of clay soil six inches deep. In the 1880's, the Chaffey Brothers imported another famous steam engine entitled "The General" to plough Mildura land. However, most farmers could not afford these inventions, and continued to use draught horses to provide power. The American-designed disc ploughs in the photograph feature multiple discs which were an improvement on the single-furrow plough as they could cut several furrows at once. Disc ploughs were therefore more modern and efficient than the single-furrow plough, and better suited to Australian farming conditions. Nevertheless, the basic, single-furrow plough was used into the 1890's.

Circular Quay West, Sydney, 1877. By 1877, Sydney had become a bustling port and, for the rest of the century, maintained its lead over other centres like Newcastle. Sydney received most of the wool in the State, even when it had to be transported by steamer from other New South Wales ports. The Quay therefore featured many warehouses for wool (located on the eastern side) and other rural produce (on the western side). In the picture, bags of wheat and other general cargo litter the wharf which, today, is the site of the Overseas Passenger Terminal and the Maritime Services Board buildings. The picture also shows the Commissariat Store, the King's Head Hotel and Thomas Mort's store (left background) which was soon to be extended after demolition of some smaller warehouses nearby. Among the ships of commerce, the vessel opposite the hotel is of particular interest because it features both steam and sail, in common with many ships in this transitory time.

Mitchell Library, State Library of New South Wales

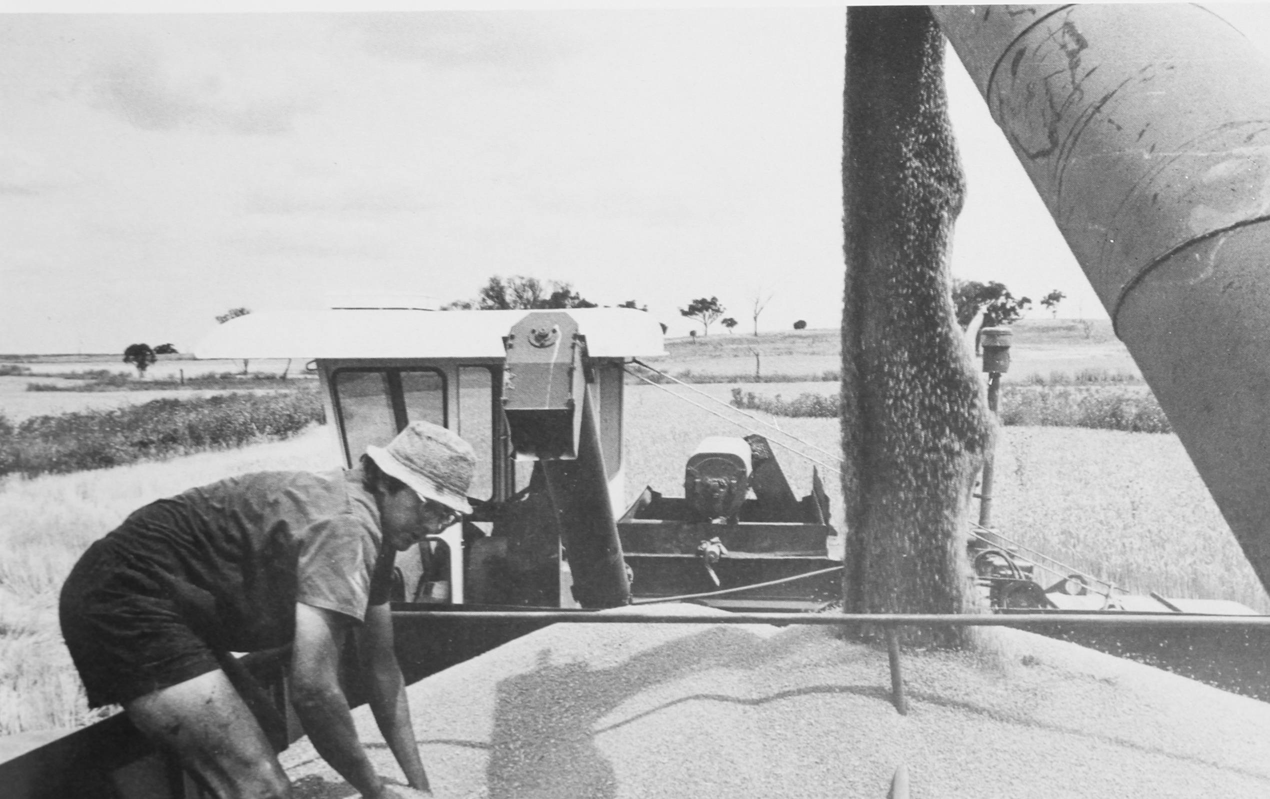


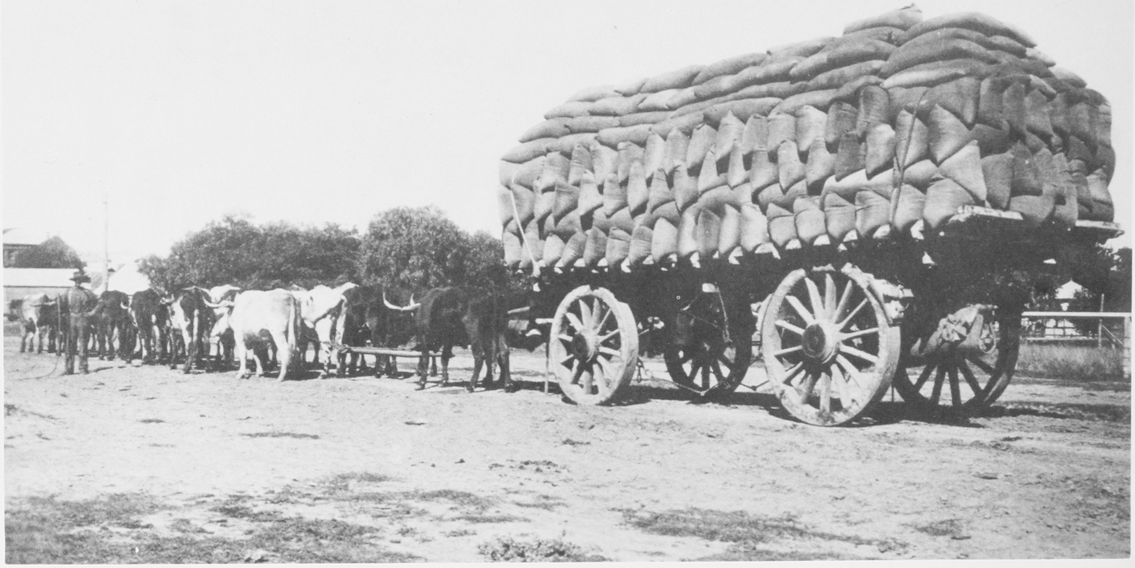


Promotion Australia

Wheat harvesting at Eumungerie, New South Wales, 1958 (above) and augering wheat at Coonabarabran, 1980's (below). Tractor-drawn (pull-type) harvesters (top) have remained very popular in Australian farming, comprising thirty to fifty per cent of the market, in contrast to North America where over ninety per cent of buyers choose self-propelled machines (below). In the top photograph, a worker follows the harvester, which has poured wheat into bags ready for sewing. In the second illustration, the header stores the threshed and winnowed grain in large storage bins, and the auger arm transports the clean grain into waiting trucks. It will then be taken to a bulk storage terminal before shipment to its final destination. Along with the giant steps made in the mechanisation of wheat farming since John Ridley offered his first "stripper" in 1843, a series of solutions have also had to be sought to other severe problems facing the industry, especially wheat disease and depleted soil. Between 1886 and 1905, the work of William Farrer was invaluable to wheat production because it succeeded in overcoming the parasite, red rust. By selective breeding, Farrer developed varieties of wheat that were both rust and drought resistant. His famous "Federation" seed, offered to farmers in 1900, soon showed a general increase of about three bushels an acre in the average yield. In regard to depletion of the soil, which caused alarming falls in the yield particularly from the 1870's to 1890's, improved agricultural advice to farmers on fertilising, fallowing and general replacement of the soil's vital elements led to increases in the number of bushels harvested per acre. Today, co-operation between wheatgrowers and the New South Wales Department of Agriculture continues such work on research stations and in experimental cultivation on farms throughout the State.

N.S.W. Department of Agriculture





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Wheat waggon at Grenfell about 1911-12 (top) and loading wheat into trains (below). These two photographs exhibit the energy expended in taking the wheat to market or mill before storage silos and other bulk handling methods were introduced in the 1920's. Not only the initial cost of the jute sacks was involved, but at harvesting these had to be filled, sewn up, labelled, loaded on to the waggon and stacked. After harvesting, the bags were reopened, the grain cleaned thoroughly and rebagged and resewn. The bags were then delivered to railways or to the local mill. The district miller usually was a man of considerable means, enjoying almost a monopolistic control over local flour production in his area. As the railways reached out to the wheatlands, however, farmers had the choice of consigning their wheat to more efficient and better-equipped flour mills in the cities. The next stage of efficiency was reached when rail transport to outlying areas was combined with bulk storage of wheat, thus finalising the mechanisation of the wheat industry. Bagging, storing and recleaning the grain were no longer necessary under modern methods of harvesting, and the cumbersome bullock teams (top) or horse teams (below) gave way to direct bulk storage methods.

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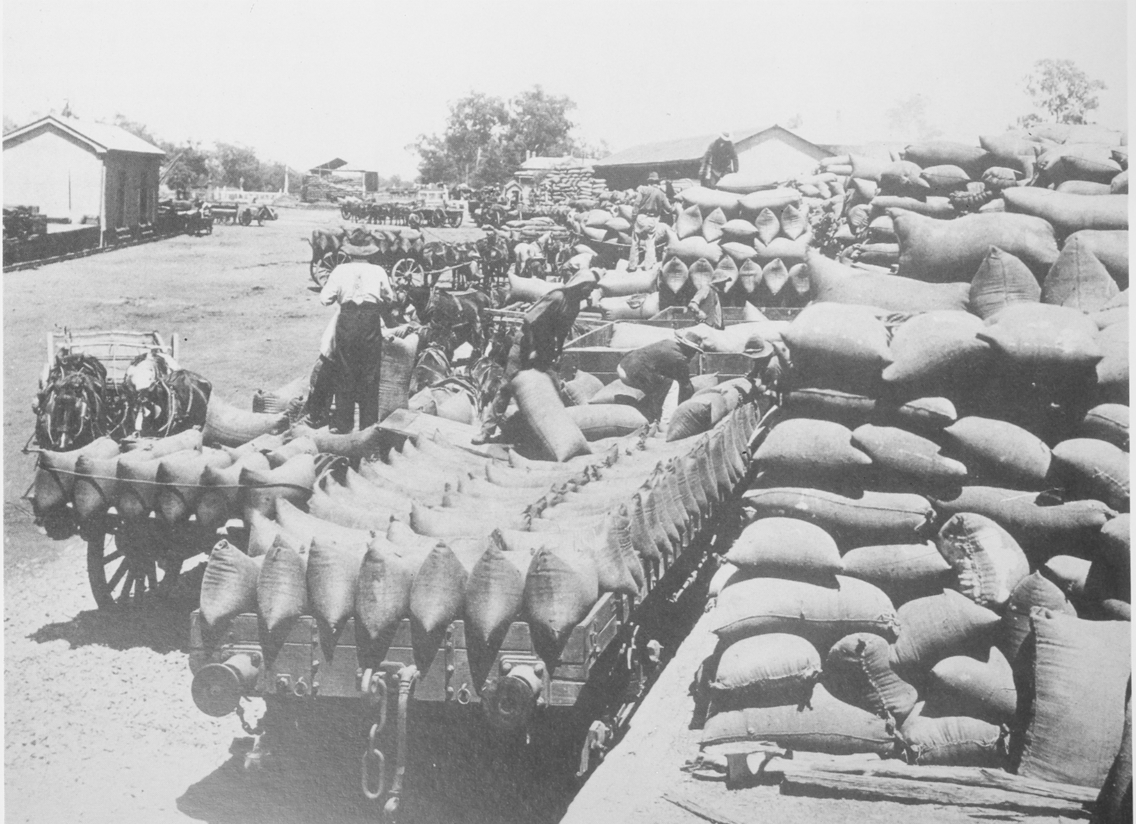
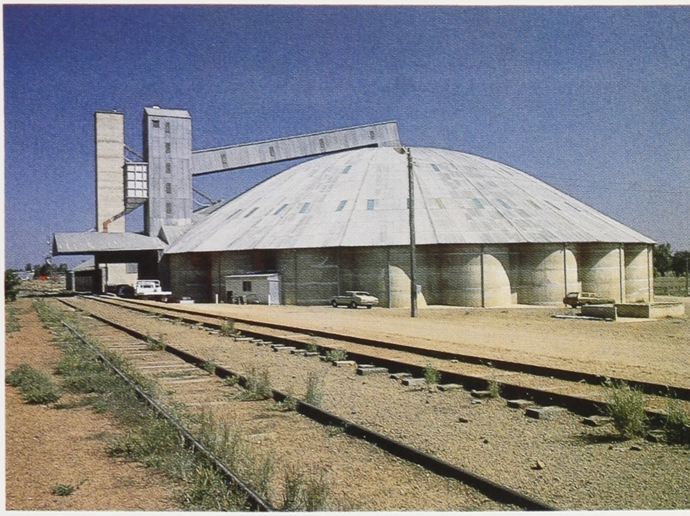
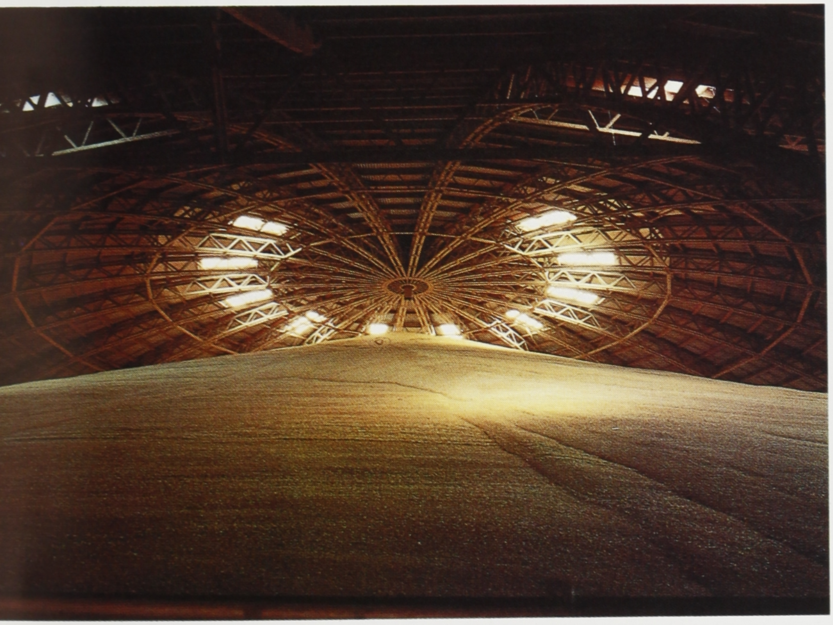


Right: Wheat silo near Gunnedah, 1979. Bulk handling of wheat in this State is carried out by the Grain Handling Authority of New South Wales which is responsible for receival, classification and storage of the wheat on behalf of the Australian Wheat Board (which sets the Australian standards for wheat quality and classification). Wheat costs have been stabilised by its bulk handling and storage, and a vast Australian export industry has been made possible. The handling and transport systems, however, are constantly subject to ongoing changes in storage construction design and technology. In addition, the bulk handling authority has to cope with increased demands for specific wheats and wheat gradings, even though the wheat is not uniform in quality and production is highly variable from season to season. To meet such problems, the Grain Handling Authority is currently upgrading terminals by installing extensive automatic sampling facilities and testing laboratories.



Promotion Australia

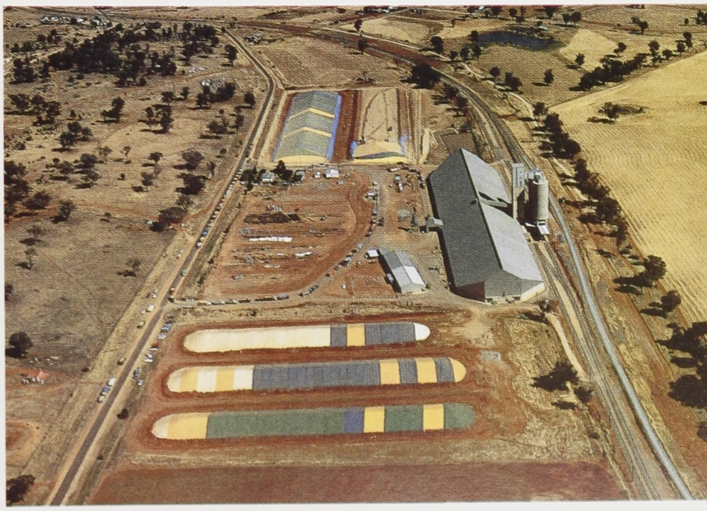


Promotion Australia

Left: Interior of above silo. In 1986, there were 480 bulk storages located at over 270 separate centres throughout the New South Wales wheat belt. Each centre is equipped to receive grain in bulk from growers' vehicles and to load it into bulk railway trucks. The total storage capacity of the entire grain handling system for the State is about 12 million tonnes, half being bunker type storage and and the other half being conventional elevator storage. Individual storage units vary in capacity from 800 to 153,000 tonnes, the longest wheat silo in Australia being at Parkes. Under a remuneration agreement between the Grain Handling Authority and the Australian Wheat Board, a fixed rate per tonne is levied by the Authority for the storage and handling of wheat delivered in a particular season.

Grain Handling Authority of N.S.W.

Right: Sub-terminal at Temora in the early 1980's, showing the development of bunker storage. Temora is one of five sub-terminals built by the Grain Handling Authority for country storage, the others being at Parkes, Werris Creek, Moree and Junee. The sub-terminals are located on important rail junctions in order to accommodate overflow grain in the harvest season. This photograph was taken during harvesting and the wheatgrowers' trucks can be seen in the left half of the picture; a recently harvested wheat field is on the right. Also on the right can be seen the fast loading and unloading railway facility. Since this photograph was taken, more bunkers have been added, some concrete-walled, but those shown here are earth-walled. Delivery of the wheat is now expedited by computerised receival systems. The coloured covers over the wheat are flexible membranes made from a variety of synthetic fabrics.



Promotion Australia

Right: Greenleaf Fertiliser Ltd., Newcastle. The use of fertilisers came slowly to Australian farmers. Up to the 1890's, despite the experience of English agriculture and the rapid depletion of the soil, fertilisers were largely ignored. Increased experimentation, however, stressed the marked deficiency of phosphorus in Australian soil, a problem that was partially solved when the country acquired Nauru, with its liberal supplies of super-phosphate, after World War I. In the new century, also, State-run Departments of Agriculture were on hand to offer specialist advice, which was gradually accepted. The spreading of fertilisers by the use of aircraft has come into general use since World War II. In 1983-84, 89 per cent of this State's total artificial fertiliser was superphosphate but, in recent years, there has been a proportional increase in the use of nitrogenous fertilisers on pastures and forage crops, especially for the production of winter feed in milk cattle and lamb-raising districts.

Promotion Australia

Left: Tomato grading, Edgell's Cannery, Cowra, 1977. The bulk of vegetable production in New South Wales is either marketed fresh through central markets, or else produced under contract for processing, either by canning, freezing or converting into various food products. Vegetables grown for processing, including tomatoes, are grown mainly in the Slopes and Southern Plains areas. Apart from processing establishments in Sydney, there are factories engaged in canning and preserving vegetable products at Bathurst on the Central Tablelands, Cowra on the Central Slopes, Batlow on the Southern Slopes, and Leeton on the Southern Plains. Successful canning of vegetables is achieved by destroying micro-organisms and enzymes associated with food spoilage. Vegetables for processing are harvested at peak quality; at the canning factory, they are then washed and sorted, peeled, trimmed, cut or diced, and packed into containers filled usually with a hot, salt brine. Finally, they are sealed, heat-sterilised, cooled, labelled and stored ready for distribution.

Below: Central District Exhibit, Royal Easter Show, 1986. The Agricultural Society of New South Wales has held shows annually since 1869. The modern district exhibits featured in the main hall of the Sydney Showground usually comprise displays of the five main agricultural areas of the State. Twelve categories of produce are featured, including fruit, vegetables, grains, preserves, wool and cotton, and the best district receives the H.C.M. See Memorial Shield. In 1987, up to $2,000 could be won for the district, as well as another $2,000 from sales. In addition, many valuable contacts are made. Each year, a district chooses a theme and then the complex task begins of collecting goods to illustrate it. Each of the twelve produce categories must be fully represented or points are deducted. The finished results are one of the highlights of the Show, and provide a vital bridge between dwellers of city and country.

Royal Agricultural Society of N.S.W.

SOUTH
CENTRAL DISTRICT
BUSH MARKET

The area and production of grapes in recent seasons is shown in the following table. The local value of grapes produced since 1980-81 is given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this chapter.

Grapes: Area and Production, N.S.W.

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Area (hectares) —						
Bearing vines	13,279	12,749	12,464	12,154	12,097	12,320
Young vines (not yet bearing)	978	772	677	695	680	842
Total	*14,257*	*13,521*	*13,141*	*12,849*	*12,778*	*13,160*
Production (tonnes) —						
Wine-making	115,733	104,972	102,804	115,960	132,032	137,812
Drying (dried weight)	11,696	13,042	11,270	11,307	9,101	12,196
Table and other purposes	5,006	5,739	5,411	4,811	7,353	7,750
Total (fresh weight) (a)	*167,523*	*166,178*	*157,040*	*171,311*	*179,735*	*197,648*
Wine production *(b)* ('000 litres)	91,993	74,340	75,663	85,167	107,368	115,261

(a) Dried weights have been converted to the fresh weight equivalent. *(b)* Beverage and distillation wine produced in wineries and distilleries (including the spirits added in wine fortifying but excluding the wine refortified during the season). Details were only collected from enterprises which crushed more than 400 tonnes.

Figures shown for the production of grapes for table use, drying, or wine making have been derived from growers, who report their production according to the purpose for which the grapes were sold or used.

The area, production, and average yield of grapes in grape-growing regions in recent seasons are shown in the following table.

Grapes: Area and Production, in Grape Growing Regions, N.S.W.

Grape Growing Regions	*Area(a) (hectares)*			*Production (tonnes, fresh weight)*			*Average yield per bearing hectare (tonnes, fresh weight)*		
	1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Hunter Valley *(b)*	3,040	2,859	2,646	16,572	14,439	17,774	5.71	5.05	6.72
M.I.A. *(c)*	4,681	4,872	5,527	72,458	84,852	94,550	16.26	17.42	17.11
Sunraysia (N.S.W.) *(d)*	3,796	3,799	3,704	75,166	75,127	78,395	20.95	19.78	21.16
Rest of N.S.W.	1,333	1,246	1,283	7,114	5,317	6,929	5.89	4.27	5.40
Total, N.S.W.	**12,849**	**12,778**	**13,160**	**171,311**	**179,735**	**197,648**	**14.10**	**14.07**	**15.02**

(a) Includes non-bearing area. *(b)* Comprising the local government areas of Greater Cessnock, Muswellbrook, Scone and Singleton. *(c)* Murrumbidgee Irrigation Area, comprising local government areas of Leeton and Griffith. *(d)* Comprising the local government areas of Wakool, Balranald and Wentworth.

The principal wine making varieties produced in 1985-86 were Gordo Blanco (18,442 tonnes), Semillon (31,958 tonnes), Shiraz (17,400 tonnes), and Trebbiano (19,636 tonnes).

Particulars regarding the types of dried grapes (currants, sultanas, and lexias) are shown later in this chapter.

Under the *Australian Wine and Brandy Corporation Act 1980*, an Australian Wine and Brandy Corporation was established. The Corporation is funded by the levy imposed under the *Wine Grapes Levy Act 1979* on grapes used in Australia for making wine and is levied on the owner of a winery or distillery which crushes twenty tonnes or more wine grapes per year. There is however a $10,000 limit on the amount payable by any one levy payer. The Corporation promotes and controls the export of grape products, encourages and promotes their consumption in Australia and arranges for research relating to the marketing of grape products.

Plantation and Other Fruit

Bananas and other tropical fruits and nuts are grown in the Richmond-Tweed and Mid-North Coast Statistical Divisions. Strawberries are grown mainly in the Sydney and Illawarra Statistical Divisions and the Lower South Coast Statistical Subdivision.

The following table gives details of the cultivation and production of plantation and berry fruit for the last three seasons.

Plantation and Berry Fruit: Area and Production, N.S.W.

	1983-84			*1984-85*			*1985-86*		
	Area (hectares)			*Area (hectares)*			*Area (hectares)*		
Fruit	*Not yet bearing*	*Bearing*	*Production ('000 kg)*	*Not yet bearing*	*Bearing*	*Production ('000 kg)*	*Not yet bearing*	*Bearing*	*Production ('000 kg)*
Bananas	501	5,090	67,953	536	4,709	62,665	597	4,567	60,867
Blueberries *(a)*	n.a.	n.a.	n.a.	143	17	10	145	27	35
Kiwi Fruit	62	53	165	66	65	170	111	96	264
Passionfruit	43	97	1,318	39	89	1,079	33	114	1,534
Pineapples	32	19	314	7	12	130	7	12	115
Strawberries	23	38	267	..	46	204	1	43	269
Other	208	25	..	22	27	..	22	32	..
Total, plantation and berry fruit	**869**	**5,322**	..	**813**	**4,965**	..	**916**	**4,891**	..

(a) Previous to 1984-85, these figures were included in "Other".

The local value of production of bananas produced in the last six seasons is given in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this chapter.

Banana-growing in New South Wales is confined to the coastal regions, extending from Kempsey to Tweed Heads. The main shires are Coffs Harbour, Tweed, Nambucca, Lismore, Byron, and Kempsey. Due to the steepness of terrain and the labour intensity of banana-growing operations in New South Wales, banana farm sizes are small with most full-time banana-growers farming between five and eight hectares of land. The area under cultivation reached a peak in 1958-59 and has subsequently declined, although the production of bananas in 1963-64 (88,177 tonnes) was a record.

Following a period of over-production, New South Wales banana growers voted in favour of the establishment of the Banana Marketing Control Committee. In order to achieve orderly marketing and stable prices, the Committee (constituted under the Banana Industry Act 1969) is empowered to impose charges on the production of bananas and to issue directions relating to their marketing. The Committee also has the power to carry out other functions relating to the handling, transport, ripening and promotion of bananas.

Bananas produced in New South Wales are marketed throughout Australia, with the wholesale fruit and vegetable markets of Sydney, Newcastle, Melbourne and Adelaide being the principal outlets. Transport to those markets is arranged by the Banana Growers Federation Co-operative Limited.

Orchard Fruit

The number of bearing fruit trees/fruit trees six years and over and the production of fruit in New South Wales in the last six seasons are given in the following table.

Orchard Fruit: Bearing Age Trees and Production, N.S.W.

Fruit	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Trees of bearing age/Trees six years and over ('000)						
Citrus fruit —						
Oranges						
Navel	826.8	806.0	783.1	774.0	773.3	781.1
Valencia	1,407.8	1,460.9	1,529.8	1,638.0	1,622.2	1,694.8
Other	19.6	15.4	11.2	6.5	6.0	4.9
Total	*2,254.2*	*2,282.3*	*2,324.1*	*2,418.6*	*2,401.4*	*2,480.7*
Lemons and limes	252.6	239.5	253.6	235.2	203.6	208.3
Mandarins	100.7	104.0	97.2	96.0	90.0	89.0
Grapefruit	131.2	138.8	150.9	134.3	130.2	133.4
Total citrus fruit (b)	*2,738.7*	*2,765.6*	*2,828.3*	*2,885.6*	*2,826.2*	*2,913.6*
Other orchard fruit —						
Apples	1,026.7	1,037.4	1,022.7	1,012.5	998.0	1,023.6
Apricots	51.8	48.7	40.7	41.0	37.3	44.1
Avocados	30.4	41.8	64.6	70.1	57.4	65.6
Cherries	244.6	239.3	225.7	212.7	213.5	222.6
Edible nuts —						
Macadamia	49.0	69.9	102.7	90.1	138.4	142.6
Other	69.4	74.6	76.8	76.6	81.6	86.5
Nectarines	33.7	42.6	48.8	63.7	46.0	49.6
Peaches	338.7	330.8	342.4	360.3	295.5	309.9
Pears	134.9	135.0	119.6	122.6	112.6	127.4
Plums	105.1	102.2	113.2	112.1	106.4	107.2
Prunes	228.2	216.1	219.3	215.7	213.5	212.4
Other	20.8	17.5	23.4	42.0	27.2	21.6
Total other orchard fruit	*2,333.4*	*2,356.0*	*2,400.0*	*2,419.3*	*2,327.3*	*2,413.1*
Total, all orchard fruit	5,072.1	5,121.7	5,228.2	5,304.9	5,153.5	5,326.7
Production (tonnes)						
Citrus fruit —						
Oranges						
Navel	66,128	53,263	56,463	55,978	61,375	66,942
Valencia	121,106	109,014	129,490	112,360	134,625	152,874
Other	1,030	629	500	314	350	315
Total	*188,264*	*162,907*	*186,453*	*168,651*	*196,350*	*220,131*
Lemons and limes	16,953	15,450	13,755	13,511	15,392	16,034
Mandarins	5,681	4,223	3,567	4,425	3,964	4,213
Grapefruit	13,058	12,670	13,141	12,569	13,136	14,024
Total citrus fruit (b)	*223,956*	*195,250*	*216,916*	*199,156*	*228,848*	*254,470*
Other orchard fruit —						
Apples	60,993	54,694	53,536	63,805	82,117	57,832
Apricots	3,633	2,013	1,745	2,167	1,501	2,950
Avocados	519	723	1,278	1,803	2,026	2,518
Cherries	3,508	2,924	1,696	1,684	1,980	2,191
Edible nuts —						
Macadamia	249	342	520	352	794	1,084
Other	948	n.a.	n.a.	n.a.	2,596	1,128
Nectarines	1,047	1,256	1,078	1,295	1,455	2,049
Peaches	18,457	16,387	14,540	13,005	14,140	16,846
Pears	6,773	7,030	4,761	7,603	5,486	4,962
Plums	3,214	3,025	2,489	3,059	2,812	2,924
Prunes	7,246	2,753	7,433	6,621	7,471	8,420

(a) Series not strictly comparable. Prior to 1984-85, data represents the number of trees of bearing age; from 1984-85 the numbers shown represent those trees aged 6 years and over. *(b)* Including "other" citrus not shown separately.

The following table shows the number of fruit trees which were not yet bearing/fruit trees under six years in each of the last six seasons in New South Wales.

Orchard Fruit: Young Trees not Yet Bearing, N.S.W. ('000 trees)

Fruit	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Citrus fruit —						
Oranges						
Navel	145.5	154.8	183.2	211.6	280.2	326.7
Valencia	468.2	546.0	632.0	653.0	717.8	660.7
Other	6.7	4.5	2.8	1.5	2.3	3.0
Total	*620.4*	*705.2*	*818.0*	*866.2*	*1,000.3*	*990.3*
Lemons and limes	40.1	34.3	46.6	41.6	56.0	69.5
Mandarins	15.4	13.7	18.8	15.6	23.7	27.8
Grapefruit	8.5	7.1	7.1	8.3	9.2	11.3
Total citrus fruit (b)	*684.4*	*760.7*	*892.3*	*(a)934.3*	*1,090.7*	*1,107.6*
Other orchard fruit —						
Apples	235.3	294.7	349.7	398.7	439.5	523.9
Apricots	11.6	14.3	15.1	15.6	16.5	13.6
Avocados	54.9	68.6	76.2	72.1	82.8	82.7
Cherries	56.4	63.1	63.2	77.4	84.2	103.4
Edible nuts —						
Macadamia	183.2	183.8	184.8	189.6	205.9	230.4
Other	27.0	27.0	25.8	35.2	32.4	53.9
Nectarines	24.1	22.3	30.4	38.2	84.6	117.3
Peaches	88.8	106.3	125.9	128.6	221.2	256.0
Pears	19.2	18.8	18.3	18.3	14.0	14.2
Plums	25.2	22.2	31.4	39.5	59.2	68.4
Prunes	38.8	35.1	35.5	50.5	60.0	72.4
Other	25.3	31.0	34.0	44.4	52.3	172.0
Total other orchard fruit	*789.8*	*887.1*	*990.2*	*1,108.0*	*1,352.5*	*1,708.2*
Total, all orchard fruit	**1,474.2**	**1,647.8**	**1,882.6**	**2,042.3**	**2,443.2**	**2,815.8**

(a) Series not strictly comparable. Prior to 1984-85, data represents the number of trees not yet bearing; from 1984-85 the numbers shown represent those trees aged less than 6 years. *(b)* Including "other" citrus not shown separately.

Most of the citrus are now concentrated in the inland irrigation areas of Leeton, Griffith and Wentworth Shires. Previously important coastal areas (within 100 kilometres of Sydney) continue to decline, with plantings mainly in the Shires of Wyong, Gosford, Hawkesbury and Baulkham Hills.

Apples are the principal type of non-citrus fruit in New South Wales, and together with pears, are grown mainly in Orange and Cabonne local government areas in the Central Tablelands Subdivision, and in Tumut Shire in the Central Murrumbidgee and Upper Murray Statistical Subdivisions.

Canning apricots and peaches are grown mainly in the Leeton and Griffith Shires with large quantities of peaches and nectarines grown in the Central and Southern Tablelands, the North Coast and in the Sydney Statistical Division.

Plums are grown mainly in the Sydney region, in the Central Tablelands and the South West Slopes, and in Leeton and Griffith Shires in the Lower Murrumbidgee and Central Murray Statistical Divisions.

Cherries are mainly grown in the City of Orange and in Young, Harden and Cabonne Shires.

Fruit processing for juice and canning is carried out at various centres including Sydney, Gosford, Bilpin, Orange, Batlow, the Murrumbidgee Irrigation Area and the Murray Valley. Freezing facilities for a range of fruits are located at Murwillumbah, whilst dried fruit production is based in the Sunraysia area.

The Central Coast (N.S.W.) Citrus Marketing Board was constituted with the object of stabilising the industry and to assist in marketing and promoting the sale of citrus (excluding lemons) grown in the Board's area. The crops are vested in the Board but growers can obtain exemption from the vesting order and sell their crops through various outlets, including agents licensed by the Board.

All citrus fruit (including lemons from August 1984) produced in the Murray Valley area is vested in the Murray Valley (N.S.W.) Citrus Marketing Board. The Board authorises growers to market their crops through approved packers, wholesalers and processors. Marketing is carried out through the Citrus Marketing Company Pty. Ltd. which is a wholly owned subsidiary of a company formed by the Board and the Victorian Citrus Fruit Marketing Board.

The local values of production of orchard and other fruit are shown in the subdivision "Value of Agricultural Commodities Produced, Crops" shown earlier in this chapter.

Dried Fruits

The cultivation and drying of vine fruits is important in the Coomealla and Curlwaa Irrigation Areas (on the Murray River, near Wentworth) and in the Goodnight and Koraleigh Irrigation Trust Districts (on the Murray River, near Swan Hill). Prunes are produced from fruit grown mainly in the Murrumbidgee Irrigation Area and in the Griffith, Young and Harden Shires in the Southern Tablelands. Small quantities of dried fruits are also produced in the Albury and Euston districts. Sultanas constituted approximately 70 per cent of the total N.S.W. production of dried fruits during the 1986 season.

The following table gives particulars of the production of the principal dried fruits in New South Wales in the last six years, as recorded by the N.S.W. Dried Fruits Board. Fluctuations in production are mainly due to seasonal factors.

Dried Fruits: Production, N.S.W.
(Dried weight-tonnes)

	Season ended 31 December					
Dried fruit	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Currants	268	607	338	370	554	676
Raisins	787	1,384	833	175	264	1,080
Prunes	2,658	849	3,416	2,343	2,925	3,498
Sultanas	7,929	12,653	11,730	12,032	9,125	12,455

All dried fruits must be handled in registered packing houses, graded, and packed hygienically in properly branded containers. The N.S.W. Dried Fruits Board regulates the marketing of dried fruits in New South Wales. The Australian Dried Fruits Corporation, established by the *Australian Dried Fruits Corporation Act 1978*, is the statutory export authority which administers the equalisation scheme for the dried vine fruits industry (i.e. currants, sultanas and raisins).

Research into the dried fruits industry in Australia is undertaken by the Dried Fruits Research Council. The operations of the Council are financed by a levy imposed on dried fruit producers.

Vegetables

The following table shows the area and production of the principal types of vegetables grown for human consumption on establishments with agricultural activity in New South Wales, in each of the last three seasons.

Vegetables for Human Consumption: Area and Production, N.S.W.

	Area (hectares)			*Production (tonnes)*		
Vegetable	*1983-84*	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Potatoes	6,807	6,601	5,910	129,564	109,258	108,258
Asparagus *(a)*	648	685	771	2,297	2,438	2,296
Beans, french and runner	1,133	1,086	819	3,465	3,548	2,805
Cabbages	625	596	578	13,231	13,095	12,625
Carrots	1,170	1,289	1,143	26,413	29,497	27,824
Cauliflowers	767	730	785	21,419	22,229	20,702
Lettuce	792	762	732	9,568	9,115	10,141
Onions	794	867	1,014	13,654	22,823	29,832
Peas, green	1,285	1,065	971	*(b)*5,707	*(b)*3,696	*(b)*3,571
Pumpkin	1,510	1,224	1,225	14,083	13,622	11,041
Sweet corn	2,402	2,227	2,546	28,692	23,651	31,602
Tomatoes	1,815	1,819	1,916	58,695	59,098	49,588
Other	2,632	2,743	2,845	..	..	..
Total, vegetables	**22,379**	**21,695**	**21,255**	..	..	..

(a) Includes area not yet bearing, 58 hectares in 1983-84, and 80 hectares in 1984-85, and 180 hectares in 1985-86. *(b)* Total weight including the pod.

All persons growing more than 0.5 hectares of potatoes must be licensed under the (State) Potato Growers' Licensing Act 1940.

Vegetables which are grown for processing (such as sweet corn, tomatoes, asparagus, peas, and beans) are grown mainly in the Northern Slopes, Central Macquarie, Lachlan, Central Murrumbidgee, Upper Murray, Lower Murrumbidgee and Central Murray Statistical Subdivisions.

Apart from manufacturing establishments located in Sydney, there are manufacturers engaged in the canning and preserving of vegetable products at Bathurst, Cowra, Batlow, and Leeton. Some vegetables grown in south-western N.S.W. are supplied to Victorian processors.

Vegetables for the fresh market are grown mainly in coastal areas and in the irrigation areas of the Lower Murrumbidgee and Central Murray Statistical Subdivisions, with some root crops also grown in Tableland areas. Tomatoes (for the fresh market) are grown along the coast. Lettuce, beans, and cabbages are grown mainly in coastal areas, cauliflowers in coastal areas and in the Shire of Evans and the City of Bathurst and peas are grown in the Northern Coastal, Central Tableland, and Sydney areas. Onions are almost entirely grown in the Southern Plains area and potatoes are grown in the Tableland, Coastal, and Southern Plains areas, while carrots are grown chiefly in Griffith Shire in the Southern Plains and Singleton Shire in the Central Coastal area.

The local value of vegetables produced for human consumption in each of the last three seasons is given in the following table.

Local Value of Vegetables Produced (a) for Human Consumption, N.S.W. ($'000)

Vegetable	*1983-84*	*1984-85*	*1985-86*	*Vegetable*	*1983-84*	*1984-85*	*1985-86*
Potatoes	39,741	14,024	23,994	*Onions*	4,854	5,097	4,318
Asparagus	2,192	2,359	2,784	*Peas, green*	1,192	986	1,060
Beans, french and runner	2,936	3,563	2,670	*Pumpkin*	1,769	1,767	2,125
Cabbages	2,308	1,506	1,364	*Sweet corn*	3,573	3,009	5,752
Carrots	7,829	4,399	5,263	*Tomatoes*	12,650	10,295	8,517
Cauliflowers	4,139	3,245	1,666	*Other*	10,323	10,352	15,594
Lettuce	4,405	3,060	4,215				
Mushrooms	11,841	14,520	12,294	***Total***	**109,753**	**78,182**	**91,616**

(a) Local value of vegetables produced is the value placed on recorded production at the place of production and is determined by deducting marketing costs from the gross value of vegetables produced.

Marketing of Fruit and Vegetables

The principal centre in New South Wales for the wholesale marketing of fresh fruit and vegetables is the Sydney Fruit and Vegetables Markets, owned and controlled by the Sydney Farm Produce Market Authority. Most of the business conducted at the Markets comprises sales by growers' agents, merchants or co-operative societies to retailers; growers may sell direct to buyers (mainly retailers) in a section of the Markets known as the Growers' Market. The Markets are located at a 41 hectare site at Flemington (approximately 14 kilometres west of Sydney).

Officers of the Department of Agriculture are located at the markets to ensure that plants and fruit comply with the requirements of the Plant Diseases Act 1924, to inspect agents' records in connection with complaints by growers and others, and to collect data on the wholesale prices and also for certain produce, the quantities sold.

Farm Produce Act

The Farm Produce Act 1983 provides a system of compulsory licensing for all persons and corporations who operate as farm produce agents or merchants in the State. Under this Act, farm produce means vegetables, potatoes and other edible roots and tubers, fruit and honey. It also requires that each licensee keep records of all receipts and sales of farm produce and, on or before the Friday in the week immediately following a sale or disposal, render to the consignee, an account of the sale or disposal, as well as the amount payable, less those deductions specified and permitted by regulations under the Act. In certain cases, the Minister has authorised that country packing houses forward payment at the end of the month following sale or disposal. Licensees must keep records for at least twelve months subsequent to sales taking place.

HAY AND SILAGE

The production of wheaten and oaten hay varies in accordance with the seasonal factors controlling yield, the prospects for grain crops, and the market demand for hay. Large quantities of hay are regularly made from surplus pasture growth in spring. Silage is livestock feed which is made from green herbage and is stored in pits, bunkers, or silos. It is compressed to exclude air and undergoes fermentation which retards spoilage.

Hay and silage are conserved to maintain livestock during the winter, when pasture growth is limited, and during periods of drought and flood. The quality of livestock products suffers from an irregular supply of feed and the Department of Agriculture and farmers' organisations have been fostering the practice of fodder conservation with improved methods of constructing silos and pits. The harvesting, handling and storage of hay has been aided by the continual improvement of haymaking and baling machinery.

Silage is generally made in districts which experience heavy rainfall and where the drying and curing of hay is made difficult by the moist conditions prevalent at the time of making hay.

The following table shows the area and production of each of the principal types of hay since 1980-81.

Hay: Area and Production, N.S.W.

Type of hay	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Area (hectares)			
Wheaten	33,081	22,239	29,340	22,462	13,440	15,708
Oaten	42,716	58,419	35,452	60,734	21,591	27,318
Lucerne	41,858	58,199	46,098	79,579	64,691	68,933
Grass and pasture	86,658	163,047	48,690	261,891	r83,289	110,888
Other *(a)*	4,903	4,040	5,201	3,513	2,300	2,626
Total area	**209,216**	**305,944**	**164,782**	**428,178**	**r185,311**	**225,473**
			Production (tonnes)			
Wheaten	67,830	62,796	43,692	84,290	39,008	48,566
Oaten	90,151	171,180	45,636	212,570	56,500	76,767
Lucerne	197,469	281,358	230,724	413,083	310,726	336,230
Grass and pasture	229,793	459,720	148,059	879,097	r241,470	322,036
Other *(a)*	8,551	9,801	17,668	11,100	4,189	5,991
Total production	**593,794**	**984,855**	**485,779**	**1,600,140**	**r651,892**	**789,590**
			Average yield per hectare (tonnes)			
Wheaten	2.05	2.82	1.49	3.75	2.90	3.09
Oaten	2.11	2.93	1.29	3.50	2.62	2.81
Lucerne	4.72	4.83	5.01	5.19	4.80	4.88
Grass and pasture	2.65	2.82	3.04	3.36	2.90	2.90
Other *(a)*	1.74	2.43	3.40	3.16	1.82	2.28
Total average yield	**2.84**	**3.22**	**2.95**	**3.74**	**r3.50**	**3.50**

(a) Includes barley, rye, millet and lupins.

The production and stocks of fodder on establishments with agricultural activity in New South Wales in each of the last six seasons are shown in the next table.

Hay and Silage: Production and Stocks on Establishments *(a)*, N.S.W.

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
		Hay				
Production (tonnes) *(b)*	593,794	984,855	485,779	1,600,140	651,892	789,590
Stocks at 31 March —						
Quantity (tonnes)	798,415	1,136,552	482,514	1,611,002	1,326,096	1,348,641
Number of establishment with stocks	14,779	16,544	13,809	17,185	16,233	16,465
		Silage				
Production (tonnes)	61,788	103,200	50,886	231,929	127,991	124,839
Stocks at 31 March —						
Quantity (tonnes)	291,659	277,820	154,691	343,073	391,485	421,329
Number of establishments with stocks	968	904	702	994	1,015	1,040

(a) Establishments with agricultural activity. *(b)* Includes grass and pasture cut for hay.

ESTABLISHMENT AND IMPROVEMENT OF PASTURES

Improved pastures mean improved livestock and livestock products; sheep produce heavier fleeces, lambs are marketed in better conditions, cows receive the essential nutrients for high milk production, and beef cattle are fattened quicker. In addition, pasture improvement is another defence against soil erosion.

Marked progress has been made since World War II in the improvement of the nutritional value of pastures by the sowing of non-native species of grasses and clovers. The area under sown pastures, including pure lucerne has increased from 1,300,000 hectares in 1939 to a record 6,700,000 in 1980.

Sown pastures have been established in a number of ways, including use of prepared seed beds, by establishment on rough seed beds following minimum tillage by direct drilling, by overseeding with legumes, and by aerial sowing. They may also be sown with cereal grains (which are harvested first, leaving behind the pastures underneath). Some pastures have been "self sown" by the spread of non-native species from adjoining land. Pasture improvement has also encompassed the judicious management of native species, browse shrubs, and fodder trees on semi-arid and arid grazing lands.

In the coastal areas, paspalum, carpet grass, and kikuyu grass have become naturalised. Sown and naturalised white clovers have become widespread, where superphosphate has been applied. Tropical pastures have been developed and widely sown in the Richmond-Tweed and Mid-North Coast Statistical Divisions for use in beef and dairy production.

However, pasture improvement has been undertaken primarily in inland areas, where the establishment of non-native grasses and legumes has been a major factor in increasing the stock-carrying capacity of agricultural land. A range of subterranean clovers and annual medics has been sown throughout the moderate and marginal winter rainfall zones of the wheat belt. Lucerne used both alone and in mixtures, has been a feature of pasture improvement over wide areas of the eastern half of the State, the north-west, and extending to inland rivers and lake beds.

In 1983-84, irrigated pastures (sown and native) comprised 289,245 hectares of the 661,535 hectares of irrigated land in New South Wales. Irrigated pastures are predominantly of winter-growing types of annual ryegrass and subterranean clover.

Fertiliser Used on Pastures

The application of fertilisers has been essential in establishing and maintaining pastures by correcting soil deficiencies. The following table shows the quantity of artificial fertilisers used on pastures, in Statistical Divisions for 1985-86.

Artificial Fertilisers Used On Pastures: Area Treated and Type Used In Statistical Divisions, 1985-86

		Quantity and type of artificial fertiliser used (a)			
				Compounds and mixtures containing	
Statistical divisions	*Area treated (hectares)*	*Super-phosphate (b) (tonnes)*	*Straight nitrogenous types (c) (tonnes)*	*Phosphorus and nitrogen (d) (tonnes)*	*Potassium with phosphorus and/or nitrogen (e) (tonnes)*
Sydney	10,633	1,799	1,606	192	295
Hunter	149,765	21,082	755	239	250
Illawarra	38,676	7,380	724	243	1,175
Richmond-Tweed	39,730	6,370	3,670	343	356
Mid-North Coast	107,811	19,498	2,297	777	1,073
Northern	764,721	81,094	1,125	530	811
North Western	102,111	10,362	542	211	55
Central West	216,368	21,512	911	769	137
South Eastern	381,908	46,825	1,205	306	694
Murrumbidgee	214,715	23,686	1,101	488	80
Murray	168,877	19,838	492	276	239
Far West	40	6	4	—	—
Total, N.S.W.	**2,195,353**	**259,452**	**14,432**	**4,372**	**5,164**

(a) Excludes lime, gypsum and dolomite. *(b)* Includes superphosphate with trace elements, sulphur etc. *(c)* Includes, for example, urea, sulphate of ammonia etc. *(d)* Excludes compounds and mixtures containing potassium. *(e)* Includes, for example, straight potassic types, NPK, etc.

In 1985-86, 92 per cent of the total artificial fertiliser used was superphosphate but, in recent years, there has been an increase in the usage of nitrogenous fertilisers on pastures and forage crops, especially for the production of winter feed in milk-cattle and lamb raising districts.

Aerial topdressing has greatly facilitated the application of fertilisers, especially on hilly areas where the terrain does not permit the use of ground spreaders. The use of aircraft for sowing, spraying, topdressing, and dusting crops and pastures reached a peak in 1964-65 but declined during the 1970's. In the last five years there has been an increased use but it is still below the peak usage of the mid 1960's.

LIVESTOCK AND LIVESTOCK PRODUCTS

The climate, terrain, and vegetation of New South Wales are eminently suited for the breeding and farming of livestock and the early economic progress of the State was closely identified with the development of the livestock industry.

Information regarding the improvement of pastures (by fertilisation of the land and by cultivation of suitable grasses) and the conservation of fodder is given earlier in this chapter.

Some indication of the geographical distribution of the pastoral lands of New South Wales is given in succeeding pages and in the division "Agricultural Land Use and Selected Inputs". Sheep grazing is the main livestock activity and is widespread in every Statistical Division except Richmond-Tweed and Mid-North Coast. Beef cattle are raised mainly in the Hunter, North-Western and Mid-North Coast statistical divisions. Dairying is located predominantly along the coastal fringe of the State. Pigs are bred principally in the Murray, Central West, Northern and Richmond-Tweed Statistical divisions, while poultry raising is largely confined to the Sydney, Hunter and Northern Statistical divisions.

AUSTRALIAN MEAT AND LIVE-STOCK CORPORATION

The Australian Meat and Live-stock Corporation was established by the *Australian Meat and Live-stock Corporation Act 1977.*

The functions of the Corporation are to promote and control exports of meat and livestock from Australia, to improve production of meat and livestock within Australia, and to promote consumption and sale of meat and livestock in both international and domestic markets.

The Corporation has powers to purchase and sell meat and livestock for export (in its own right), and to improve the quality and methods of production, storage, transport, and marketing of meat and livestock. In 1982, these powers were extended, enabling the Corporation to enter into meat or livestock futures contracting; to grant, cancel or suspend export licences; to establish and allocate meat quotas to licence holders; to contract for carriage of meat and livestock by sea; to be the sole exporter or to limit the number of licensees who may trade to a particular market, for development purposes, or where that import market is controlled by a single purchasing authority, which handles the bulk of such imports and can set prices; to enter and search premises under certain conditions, and to seize and retain meat or livestock, through the action of authorised officers. In 1984, legislative changes enabled the Australian Meat and Livestock Corporation to concentrate its efforts on commercial activity, including the promotion and marketing of meat both in Australia and overseas. The long term strategies of the Corporation including the improvement in the efficiency of the meat marketing system, are embodied in its five year plans, the first of which runs from 1985-86 to 1989-90. The overall policy making decisions relating to the meat and livestock industry are the responsibility of the Australian Meat and Live-stock Industry Policy Council. Finance for the Corporation's operations is derived for the most part from levies imposed on cattle, calves, buffaloes, goats, sheep, and lambs slaughtered for human consumption, and export charges on the export of live cattle, buffaloes, sheep, lambs and goats.

The Australian Meat and Live-stock Corporation is required to hold an annual general meeting where shareholders of the Corporation are presented with annual reports and audited financial statements. The annual general meeting enables assessment of the Corporation's performance to be made.

LIVESTOCK

The following table shows the number of cattle, sheep, pigs, and poultry in New South Wales at decennial intervals from 1861 to 1971, and at the end of each of the last twelve seasons.

Livestock *(a)* in New South Wales ('000)

Year(b)	*Cattle*	*Sheep*	*Pigs*	*Poultry*	*Year(b)*	*Cattle*	*Sheep*	*Pigs*	*Poultry*
1861	2,272	5,615	146	n.a.	*1975*	8,935	54,983	729	18,082
1871	2,015	16,279	213	n.a.	*1976*	9,138	53,200	709	19,979
1881	2,597	36,592	214	n.a.	*1977*	8,348	49,700	760	17,493
1891	2,129	61,831	253	n.a.	*1978*	7,330	48,000	737	19,161
1901	2,047	41,857	266	n.a.	*1979*	6,484	48,400	759	19,437
1911(c)	3,194	48,830	371	n.a.	*1980*	6,097	48,600	829	22,629
1921(c)	3,375	37,750	306	n.a.	*1981*	5,459	46,000	787	22,455
1931	2,840	53,366	334	5,455	*1982*	5,429	48,700	766	21,183
1941	2,769	55,568	508	6,234	*1983*	5,017	48,095	794	21,767
1951	3,703	54,111	317	7,796	*1984*	5,036	50,997	799	20,227
1961	4,242	68,087	455	6,292	*1985*	5,226	55,498	814	21,100
1971	6,494	70,605	796	15,987	*1986*	5,409	58,001	798	21,333

(a) The number of horses from 1861 to 1970 is shown on page 863 of Year Book No. 64. *(b)* At 31 December in 1861 to 1911, at 30 June in 1921 and 1931, and at 31 March in 1941 and later years. *(c)* Includes Australian Capital Territory.

Sheep numbers rose to a near record level in 1969-70 (72,284,000 as compared with a record 72,396,000 in 1964-65), but largely as a result of falling returns from wool and adverse seasonal conditions in 1971-72 and 1972-73, growers converted to beef cattle raising and grain farming. However, as a result of falling gross margins in other farm enterprises, the relatively better performance of sheep during drought periods and the reliable income provided by the wool market, sheep numbers have increased significantly in recent years. Cattle numbers reached a record level in 1975-76 but have since declined, although there have been marginal increases from 1983-84 onwards.

Pig farming underwent a period of rationalisation after severe overproduction in 1971-72 and 1972-73. The number of establishments with pigs has fallen by 57 per cent over the last decade, with pig numbers declining by 24 per cent since the record year of 1972-73. Poultry numbers, as recorded at 31 March each year, increased steadily over the period since 1967 to a record number in 1980. Poultry numbers should be taken only as a general indication of the size of the industry; seasonal conditions and the characteristics of production, combined with the short gestation period for poultry, may result in quite sharp short-term fluctuations in numbers.

Sheep

Sheep numbers in New South Wales had remained relatively stable in recent years, despite fluctuating seasonal conditions and rising production costs, until 1981 when continuing drought led to a reduction in the number of breeding ewes and, consequently, in the numbers of lambs and young sheep. However, with breaking of the drought, sheep and lamb numbers have, in general, increased in recent years. There has also been a swing towards a greater percentage of wool production, with the percentage of intended matings to merino rams also increasing. Wethers have become more popular with this swing into wool production.

The following table gives an indication of the importance of factors which have influenced sheep numbers in recent years.

Sheep: Elements of Increase and Decrease (Season ended 31 March) ('000)

Item	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Lambs marked	16,713	15,249	15,985	16,684	16,225	19,365	18,172
Sheep and lambs slaughtered	10,052	9,619	8,132	9,062	7,942	8,147	9,558
Net exports of sheep and approximate number of deaths on establishments (balance)	6,461	8,230	5,153	8,227	5,381	6,717	6,111
Sheep at 31 March	48,600	46,000	48,700	48,095	50,997	55,498	58,001
Net increase (+) or decrease (−)	(+)200	(−)2,600	(+)2,700	(−)605	(+)2,902	(+)4,501	(+)2,503

The numbers of sheep in Statistical Divisions of New South Wales at 31 March 1976 and for the last six years are shown in the next table.

Sheep Numbers, in Statistical Divisions
(At 31 March)
('000)

Statistical divisions	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Sydney	28	14	16	14	18	16	19
Hunter	660	585	626	723	736	754	780
Illawarra	53	46	51	59	56	63	44
Richmond-Tweed	2	5	5	10	13	9	10
Mid-North Coast	11	16	12	15	13	11	19
Northern	7,971	6,747	7,486	8,242	8,491	8,902	9,381
North-Western	11,232	8,907	9,869	9,833	10,693	11,527	11,643
Central West	9,034	8,077	8,352	8,139	8,347	9,480	10,084
South-Eastern	8,685	7,272	7,362	7,176	7,444	8,234	8,828
Murrumbidgee	7,165	6,784	6,979	6,672	7,061	7,721	7,949
Murray	5,604	5,445	5,663	5,309	5,845	6,154	6,458
Far West	2,756	2,103	2,278	1,902	2,280	2,627	2,785
Total, N.S.W.	**53,200**	**46,000**	**48,700**	**48,095**	**50,997**	**55,498**	**58,001**

Age, Sex, and Natural Increase of Sheep

The greater part of lambing in the State takes place during the winter and spring months, although a considerable proportion of ewes, varying according to the nature of the season, is reserved for autumn lambing. Comparatively few lambs are dropped in the summer months of December, January, and February. Seasonal changes play a part in determining the proportion of ewes mated and of resultant lambs, and cause wide variations in the natural increase.

The following table gives lambing results and an approximate age and sex distribution of sheep in New South Wales in the 1976 season and for the last six seasons.

Sheep: Sex, Age and Natural Increase
(Season ended 31 March)

Item	*Unit of quantity*	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Ewes mated *(a)*	'000	21,000	20,248	20,696	21,698	20,818	22,889	22,464
Lambs marked	'000	15,570	15,249	15,985	16,684	16,225	19,365	18,172
Ratio of lambs marked to ewes mated	*per cent*	*74.1*	*75.3*	*77.2*	*76.9*	*77.9*	*84.6*	*80.9*
Number of sheep at end of season								
Sheep 1 year and over								
Rams	'000	648	600	608	597	610	622	654
Ewes	'000	28,595	26,356	27,290	26,445	28,529	28,998	30,342
Wethers	'000	11,615	8,644	9,102	9,054	10,058	11,179	13,604
Lambs and hoggets under 1 year	'000	12,342	10,400	11,700	11,999	11,801	14,700	13,401
Total sheep	**'000**	**53,200**	**46,000**	**48,700**	**48,095**	**50,997**	**55,498**	**58,001**

(a) Ewes mated to produce lambs marked in the season shown.

During the last ten seasons the average lambing rate, which is the ratio of lambs marked to ewes mated, was 78 per cent. During 1976-77, severe drought in Southern Areas and flooding on the Northern Plains adversely affected mating and lambing.

Particulars of lambing in Statistical Divisions of the State in the last two seasons are shown in the next table. The ratio of lambs marked to ewes mated in the Far West Statistical division (which is the driest part of the State) is consistently lower than the ratio for the State as a whole.

Lambing, in Statistical Divisions (Season ended 31 March)

Statistical divisions	*Ewes mated ('000)(a)* 1985	1986	*Lambs marked ('000)* 1985	1986	*Ratio of lambs marked to ewes mated (per cent)* 1985	1986
Sydney	6	6	5	6	85.5	94.8
Hunter	243	237	210	196	86.2	82.6
Illawarra	25	20	24	19	96.2	96.0
Richmond-Tweed	4	5	4	4	81.6	77.4
Mid-North Coast	6	7	7	9	111.8	118.6
Northern	3,420	3,289	3,107	2,989	90.9	90.9
North Western	4,758	4,518	3,889	3,342	81.7	74.0
Central West	3,978	3,939	3,473	3,345	87.3	84.9
South Eastern	3,055	3,030	2,648	2,580	86.7	85.2
Murrumbidgee	3,479	3,474	2,910	2,743	83.6	79.0
Murray	2,790	2,799	2,290	2,200	82.1	78.6
Far West	1,123	1,139	799	739	71.1	64.9
Total, N.S.W.	**22,889**	**22,464**	**19,365**	**18,173**	**84.6**	**80.9**

(a) Ewes mated to produce lambs marked in the season shown.

Number and Size of Sheep Flocks

Establishments with sheep in New South Wales in 1986 are classified in the following table according to the size of the flock on each establishment, for selected Statistical Divisions and the rest of New South Wales.

Establishments with Sheep, Classified by Size of Sheep Flock, 31 March 1986

Size of sheep flock	*Central West Statistical Division*	*Northern Statistical Division*	*North-Western Statistical Division*	*South-Eastern Statistical Division*	*Murrum-bidgee Statistical Division*	*Murray Statistical Division*	*Rest of N.S.W.*	*Total N.S.W.*
Under 100	224	420	174	211	141	136	383	1,689
100- 499	832	883	445	665	521	532	165	4,043
500- 999	1,014	688	533	724	829	629	88	4,505
1,000- 1,499	915	564	489	510	706	452	66	3,702
1,500- 1,999	721	427	463	406	482	341	46	2,886
2,000- 2,999	890	546	612	559	569	368	73	3,617
3,000- 3,999	414	352	428	330	243	191	37	1,995
4,000- 4,999	217	204	297	195	148	120	39	1,220
5,000- 9,999	241	328	542	317	196	225	210	2,059
10,000-19,999	35	87	108	64	51	49	84	478
20,000-49,999	3	12	11	15	20	10	10	81
50,000 or more	—	1	—	—	2	1	—	4
Total establishments	**5,506**	**4,512**	**4,102**	**3,996**	**3,908**	**3,054**	**1,201**	**26,279**

About 68 per cent of sheep carrying establishments in the State contain from 500 to 4,999 sheep, while nearly 22 per cent contain less than 500 sheep. The number of establishments with 20,000 or more sheep has declined from over 400 at the turn of the century to 85 in the 1986 season.

Trends between 1901 and 1975 in the size of sheep flocks on establishments in the State are illustrated on page 868 of Year Book No. 64.

Breeds of Sheep

The Merino is the most important breed of sheep in New South Wales. It is essentially a wool-producing breed, and is found in all districts of the State where sheep are raised. It is noted for its hardiness and its ability to endure extreme weather conditions, and is the most suitable sheep for the far-western areas, where pastures are sparse and the climate hot and dry.

The British breeds and the various types of crossbreds used mainly for the production of meat require good grazing conditions, and are therefore found in the higher rainfall areas of 500 or more millimetres per annum. Australasian breeds, such as the Corriedale and Polwarth, which have been evolved specially for Australian conditions, are valuable as dual-purpose sheep, breeding a marketable lamb and producing a good quality saleable fleece. The Corriedale is a fixed cross between Lincoln rams and Merino ewes, and the Polwarth a fixed comeback bred from the mating of Merino rams with Lincoln-Merino ewes.

The numbers of the principal breeds of sheep in New South Wales, classified by selected Statistical Divisions and the rest of New South Wales, are shown for 1986 in the following table.

Breeds of Sheep in Selected Statistical Divisions and rest of N.S.W at 31 March 1986*(a)* ('000)

Breed	*North-Western Statistical Division*	*Central West Statistical Division*	*Northern Statistical Division*	*South-Eastern Statistical Division*	*Murrumbidgee Statistical Division*	*Murray Southern Plains*	*Rest of N.S.W.*	*Total New South Wales(b)*
Merino	8,374	5,869	5,668	5,814	4,146	3,979	2,801	36,651
Other recognised breeds —								
Bond	1	—	2	13	146	53	—	215
Border	76	96	77	85	83	41	6	464
Corriedale	28	113	26	57	500	328	6	1,058
Dorset Horn	27	70	40	41	33	26	3	240
Poll Dorset	34	77	84	50	70	36	8	359
Polwarth	14	26	19	31	46	46	—	181
Romney Marsh	—	19	6	4	—	4	3	35
Tukidale	1	21	6	7	2	4	1	43
Other	8	33	30	21	30	25	3	150
Merino Comeback *(b)*	324	370	378	328	286	289	77	2,053
Crossbred *(c)*	878	1,900	1,595	1,015	1,332	664	114	7,500
Total, all breeds	**9,765**	**8,595**	**7,929**	**7,466**	**6,675**	**5,495**	**3,023**	**48,949**

(a) There was incomplete reporting of the breeds of sheep items in the Agricultural Census. As a result, the figure shown above for total sheep by breed differs from the total number of sheep shown earlier in this section. *(b)* Finer than half-breed. *(c)* Half-breed or coarser.

The breed of ram used for mating is usually determined by the type of sheep husbandry carried on, which, in turn, is determined to some extent by climate and topography. In all sheep-raising areas of New South Wales, flocks bred from Merino rams predominate. In the drier and non-irrigated parts of the Plains areas, the Merino ram is used almost exclusively with ewes of the same breed. Where rainfall and pastures are sufficient and reliable, mainly on the Tablelands and Slopes, prime lambs may be bred by the mating of crossbred ewes to rams of short-wool meat breeds, mainly Dorset Horn and Poll Dorset. The lambs mature rapidly and are usually marketed at about four months of age without having been shorn. This type of breeding, which is highly specialised and requires good pastures and management, is also suitable for irrigated areas where feed is assured. Where the rainfall is lighter and less reliable, e.g. in the wheat growing areas, there are many dual-purpose flocks. The most common ram used in these flocks is the Border Leicester, a long-wool English breed usually mated with Merino ewes. The progeny from such a mating may be sold as prime lambs if the season and markets are good, or kept for wool-growing or for later fattening as mutton. Most of the ewe progeny of this cross are purchased by the specialised prime lamb breeders on the Tablelands and Slopes. Another type of dual-purpose flock is that consisting of Corriedale or Polwarth sheep.

Stud Sheep

Stud flocks of sheep in New South Wales have reached a high standard, and further development can be expected with the introduction of new methods of breeding and feeding. There are registers of studs, based on specified standards for each breed of sheep, and registration is controlled by the various breed associations.

The export of merino breeding sheep and breeding material has been subject to restrictive export controls since 1929. Currently, rams may be exported subject to certain sales and quota arrangements, but the export of merino ewes, semen, ova and sheep embryos is prohibited to all countries except New Zealand. A decision on export controls to apply after 1986-87 will be made, taking into account the findings of a special inquiry committee. This committee was established in September 1985 and released a draft report in 1986, recommending continued limited exports of rams and semen only. The industry has been allowed to respond to this committee's funding.

Cattle

The number of cattle in New South Wales at intervals since 1861 is shown earlier in this subdivision. The age and sex distribution of cattle in 1976 and each of the last five years is given in the next table.

Cattle: Sex and Age
(At 31 March)
('000)

Type of cattle	*1976*	*1982*	*1983*	*1984*	*1985*	*1986*
Bulls (1 year and over)	151	102	92	95	97	101
Cows and heifers (1 year and over) —						
For commercial milk, etc. *(a)*	493	364	377	371	357	348
Other *(b)*	4,454	2,729	2,447	2,547	2,610	2,698
Bullocks, steers, etc.	1,285	753	662	665	632	689
Calves (under 1 year) —						
Heifer calves *(a)*	72	55	59	58	59	57
Other *(b)*	2,682	1,426	1,381	1,300	1,469	1,516
Total cattle	**9,138**	**5,429**	**5,018**	**5,036**	**5,226**	**5,409**

(a) Cattle used (or intended) for production of milk and cream for sale. *(b)* Cattle mainly for meat production.

The number of cattle in the State varies under the influence of three factors: natural increase (excess of calving over deaths from causes other than slaughtering), net imports, and slaughterings. Available particulars of the increases and decreases in 1976 and recent seasons recent seasons are shown in the next table.

Cattle: Elements of Increase and Decrease
(Season ended 31 March)

Cattle	*1976*	*1982*	*1983*	*1984*	*1985*	*1986*
Calves born *(a)*	3,096,146	1,784,735	1,796,926	1,645,172	1,849,235	1,903,332
Slaughterings —						
Calves	396,178	277,039	349,013	227,782	164,167	192,752
Other cattle	2,504,579	1,666,746	1,924,286	1,480,771	1,298,793	1,581,486
Deaths of cattle (disease, drought, etc.) and net imports of cattle *(b)*	(+)7,531	(+)129,172	(+)65,185	(+)80,909	(−)196,295	(+)54,641
Total cattle at end of season	**9,137,994**	**5,429,209**	**5,018,021**	**5,035,549**	**5,225,529**	**5,409,264**
Net increase (+) or decrease (−)	**(+)202,920**	**(−)29,878**	**(−)411,188**	**(+)17,528**	**(+)189,980**	**(+)183,735**

(a) Excludes still-born. *(b)* These figures represent a balance.

Cattle Types

The number of cattle in New South Wales at 31 March 1976 and the last five years is classified in the following table according to whether they were raised for milk production or for meat production. The number of milk breed cattle have shown an overall decline in recent years due, in part, to high costs and unsatisfactory net returns for milk and milk products. Meat breed cattle, after a period of strong expansion of herds, reached a peak in the 1976 season and have since declined, although increases occurred in the 1984 and 1985 seasons. The increase in cattle numbers in the early 1970's was a result of rising meat prices on both domestic and export markets and increased breeding programs to meet an unexpected increase in demand. The loss of export markets and subsequent fall in meat prices, together with escalating costs have, since then, severely reduced the profitability of meat cattle farming. After an initial reduction in slaughterings during the 1975 season in anticipation of a recovery in export prices, slaughterings reached much higher levels in 1976 and 1977 seasons and, as a result, cattle numbers in the State fell substantially in 1977 for the first time since the drought conditions of the mid 1960's. A recovery in beef prices in 1978-79 led to a continuation of the reduction in cattle numbers as continued increases in slaughterings were accompanied by a continued fall in the numbers of calves born. The widespread drought, which began in 1979-80, further reduced cattle numbers. However, with the breaking of the drought, total cattle numbers have increased marginally in 1984 to 1986. The rate of herd increase has been restricted by the erratic season conditions prevailing throughout the 1980's.

Cattle Classified by Type
(At 31 March)
('000)

Type	*1976*	*1982*	*1983*	*1984*	*1985*	*1986*
Bulls and bull calves, used, or intended for service —						
Bulls (1 year and over)						
Milk breeds	9	6	5	5	5	5
Meat breeds	142	96	87	89	92	97
Bull calves (under 1 year) *(a)*						
Milk breeds	2	1	1	1	1	1
Meat breeds	31	23	22	26	30	31
Total bulls and bull calves	**183**	**126**	**115**	**122**	**128**	**134**
Milk breed cows and heifers *(b)*						
Cows	384	283	293	285	274	264
Heifers (1 year and over)	109	81	84	87	83	84
Heifer calves (under 1 year)	72	55	59	58	59	57
Total milk breed cows and heifers	**565**	**419**	**436**	**429**	**416**	**405**
House cows and heifers *(c)*	54	30	30	29	28	27
Other cattle mainly for meat production —						
Cows and heifers (1 year and over)	4,400	2,699	2,417	2,518	2,583	2,672
Calves (under 1 year) *(d)*	2,650	1,402	1,358	1,272	1,439	1,483
Bullocks, steers, etc.	1,285	753	662	665	632	689
Total other cattle	**8,335**	**4,855**	**4,437**	**4,455**	**4,653**	**4,844**
Total cattle	**9,138**	**5,429**	**5,018**	**5,036**	**5,226**	**5,409**

(a) Dual purpose breed bulls are classified according to the principal purpose for which the progeny are to be used. *(b)* Cows and heifers used (or intended) for production of milk and cream for sale. *(c)* Cows and heifers being kept primarily for own milk supply. *(d)* Including vealers.

Cattle Breeds

The major breed of meat cattle in New South Wales, numerically and in terms of market influence, is the Hereford which is distributed fairly evenly throughout the beef producing areas of the State. Other significant British (bos taurus) breeds, less evenly distributed, are, the Poll Hereford, Shorthorn, Angus, Devon, and Red Poll. The number of Murray Grey, an Australian developed beef breed, has increased considerably over recent years and is extensively used in cross breeding with both beef and dairy herds. European breeds, which were introduced into breeding programs when semen importation was commenced in 1969, include the large late-maturing breeds such as the Charolais, Simmental and Limousin. The Italian white breeds including Chianina have also been utilised to extend the genetic base in beef production. There has been a marked increase in the number of crossbred cattle since 1983. Planned crossbreeding offers productive increases due to the combination of different breed characteristics and from hybrid vigour. The Brahman (bos indicus) breed and such derived breeds as the Santa Gertrudis, Droughtmaster, Braford and Brangus, are contributing on an increasing scale to the make-up of herds, particularly in sub-tropical areas, and are notable for their heat and parasite tolerance, disease resistance, and productivity in harsh environments.

In the dairy herds in New South Wales, the Holstein-Friesian breed predominates. The popularity of other milk breed cattle (such as, Illawarra, Guernsey, Jersey, Ayrshire and Australian Milking Zebu) varies, and is largely determined by local conditions and market demands.

The numbers of cattle by principal breed and type in New South Wales at 31 March 1982, the latest year for which data are available, are shown in the following table.

Cattle, by Breed and Type in New South Wales, at 31 March 1982 *(a)*

Breed	*Bulls (1 year and over)*	*Cows and heifers (1 year and over)*	*Calves (under 1 year)*	*Other cattle (e.g. steers, bullocks, etc.)*	*Total cattle*
Straight breeds —					
Dairy breeds —					
Illawarra	770	36,558	6,682	2,107	46,117
Holstein-Friesian	3,078	239,740	39,473	6,661	288,952
Guernsey	292	15,296	2,584	43	18,215
Jersey	1,337	63,653	10,704	1,319	77,013
Beef breeds —					
Angus	7,557	171,438	84,088	32,660	295,743
Braford	1,209	14,331	7,592	2,095	25,227
Brahman	813	6,112	2,449	1,273	10,647
Charolais	607	9,047	4,110	984	14,748
Devon	1,513	31,724	14,496	8,191	55,924
Hereford (including Poll)	60,481	1,646,724	848,707	465,144	3,021,056
Murray Grey	3,355	56,248	29,768	9,779	99,150
Red Poll	322	7,693	3,759	1,025	12,799
Santa Gertrudis	3,037	50,602	21,255	13,613	88,507
Shorthorn (including Poll)	9,521	226,440	114,595	49,658	400,214
Simmental	703	4,971	2,573	276	8,523
Cross breeds —					
British/British	2,201	225,521	148,295	101,225	477,242
Brahman/British	668	32,415	17,514	12,352	62,949
Other Tropical/British	738	55,141	33,230	13,290	102,399
European/Other	1,202	31,564	23,446	7,562	63,774
Beef/Dairy	673	90,843	53,863	20,855	166,234
Other breeds and not specified	1,772	46,854	12,051	2,942	63,619
Total, all breeds	**101,849**	**3,062,915**	**1,481,234**	**753,054**	**5,399,052**

(a) Excludes house cows and heifers 1 year and over kept primarily for on-farm milk supply.

Geographical Distribution of Cattle

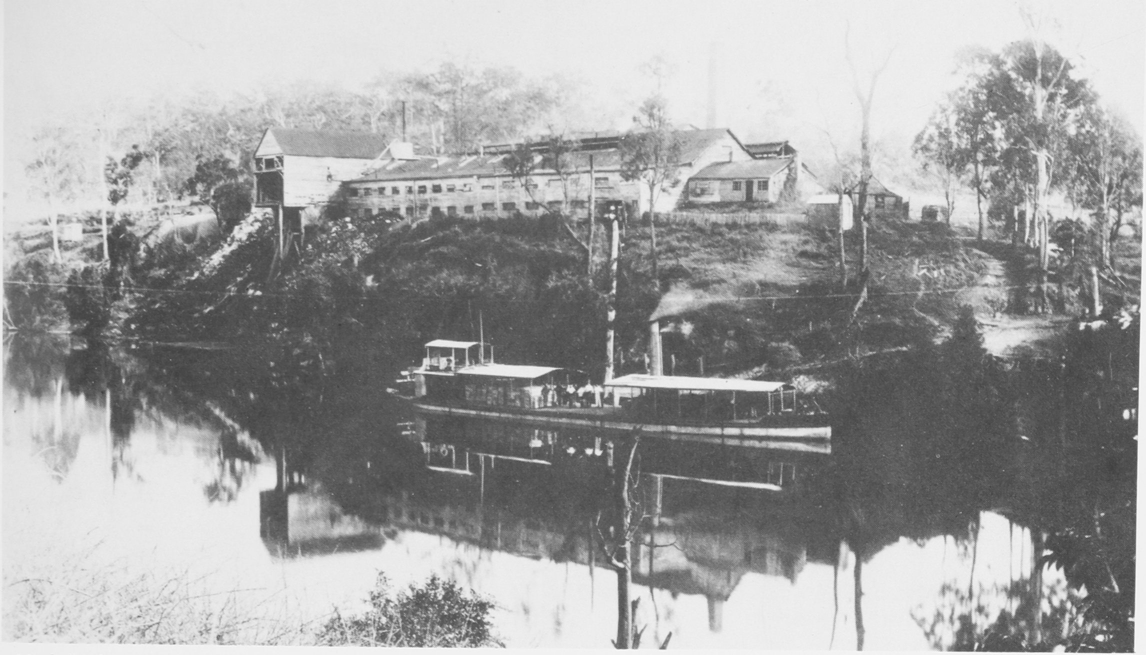
About 86 per cent of the milk breed cattle in commercial dairies in New South Wales are in the Coastal Areas. In inland areas, milk production is undertaken mainly to supply local needs, but there is some concentration of milk breed herds near the southern border and in irrigation settlements.

Milk Breed Cattle *(a)* in Commercial Dairies *(b)*, in Statistical Divisions (At 31 March)

Statistical divisions	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Sydney	50,213	31,498	31,921	34,399	30,333	28,171	27,278
Hunter	125,294	90,557	88,285	91,156	88,870	85,530	84,629
Illawarra	68,891	57,475	55,744	56,499	55,398	52,514	51,472
Richmond-Tweed	90,952	62,911	62,174	64,906	65,324	63,424	62,960
Mid-North Coast	108,046	88,502	86,386	90,502	88,693	87,198	83,193
Northern	9,630	6,725	6,499	6,219	7,262	6,913	6,430
North-Western	4,302	3,681	3,495	3,387	3,520	3,551	3,297
Central West	7,160	6,663	6,136	5,230	5,249	4,990	4,669
South-Eastern	46,513	36,199	36,926	38,700	38,804	40,094	40,122
Murrumbidgee	9,931	6,214	6,029	5,728	6,298	5,934	5,610
Murray	44,344	34,051	34,967	39,010	39,590	38,081	35,300
Far West	—	—	—	—	—	—	—
Total, N.S.W.	**565,276**	**424,476**	**418,562**	**435,736**	**429,341**	**416,400**	**404,960**

(a) Cows, heifers, and heifer calves used (or intended) for production of milk and cream for sale. *(b)* Establishments producing milk and cream for sale and/or raising milk breed herd replacements.

Cattle raised mainly for meat production are more widely distributed throughout the State. The principal Statistical Divisions for these cattle for the 1986 season were the Northern Statistical division (30 per cent), the Hunter and North Western Statistical divisions (each 11 per cent), and the Mid-North Coast Statistical division (9 per cent).

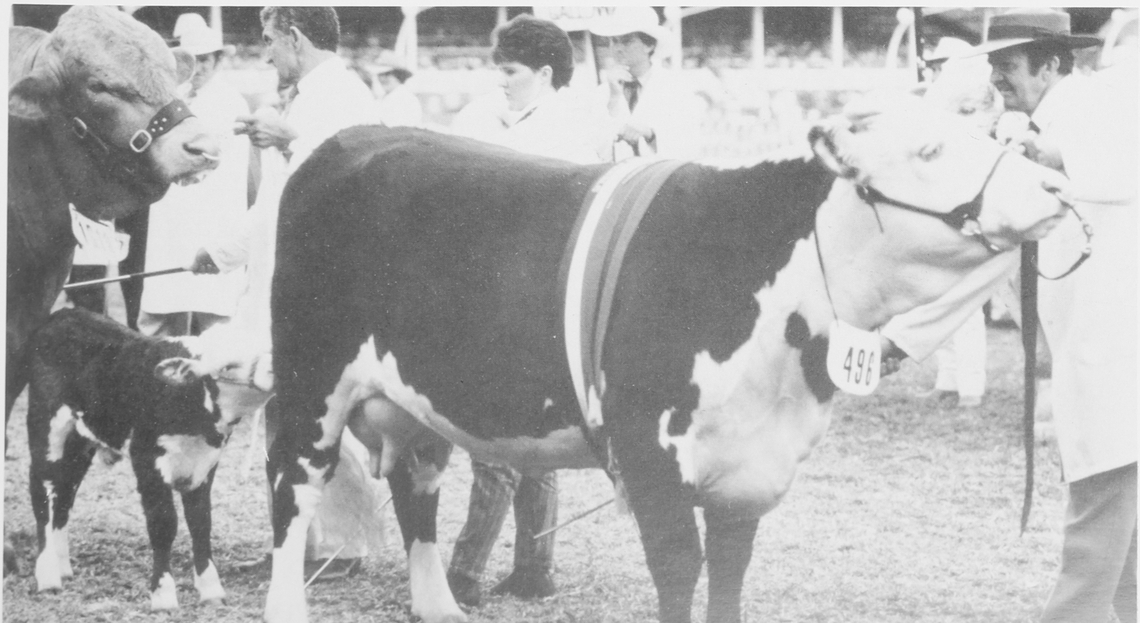


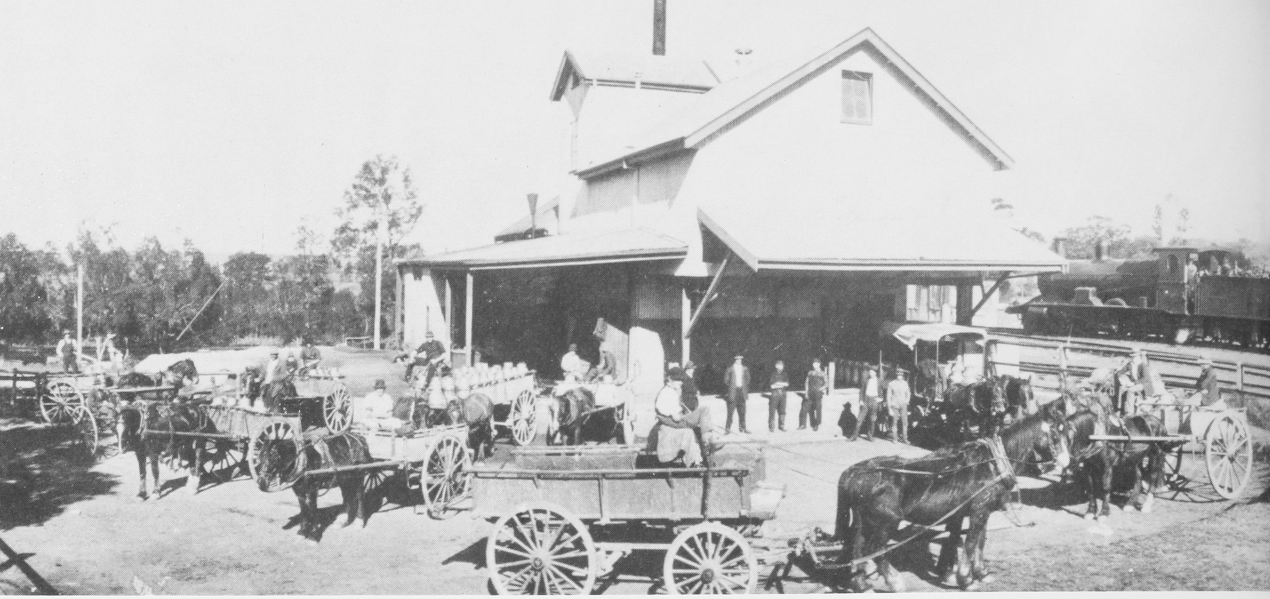
Mitchell Library, State Library of New South Wales

Australian Meat-Preserving Company's Works, Ramornie, Clarence River. By the end of the nineteenth century, such methods of meat preservation as salting, bottling and tinning had been tried, as well as the injection of carbonic acid into joints of meat. Success with these methods varied and carried a considerable element of risk but meat canning was to prove more rewarding. The first canning works had been opened near Newcastle in 1847 by W. & H. Dangar. The canning method slowly grew in popularity so that, by the end of the century, many rural towns had their own canning works (as in this photograph). Most of the canned meat was exported to Britain, where increasing urbanisation created a ready market. By 1880, sixteen million pounds of Australian tinned meat were being sold annually to that country. Meanwhile, experiments in the refrigeration of meat destined for long voyages were also in progress.

Recent cattle exhibits at the Royal Easter Show. Levies imposed on slaughtered Australian sheep, cattle and other livestock and on exported live animals provide funds for research into problems of the livestock and meat industry. The Commonwealth Government contributes, dollar for dollar, to this research expenditure and the funds are allocated to projects recommended by the Australian Meat and Livestock Research and Development Corporation. In New South Wales, such projects are undertaken by the Department of Agriculture research stations and on several private properties. Research is also conducted by the Bureau of Agricultural Economics, the CSIRO and the Universities of Sydney, New South Wales and New England. Scientific, technical and economic research programs into the dairy industry are administered by the Australian Dairy Research Committee.

Royal Agricultural Society of N.S.W.





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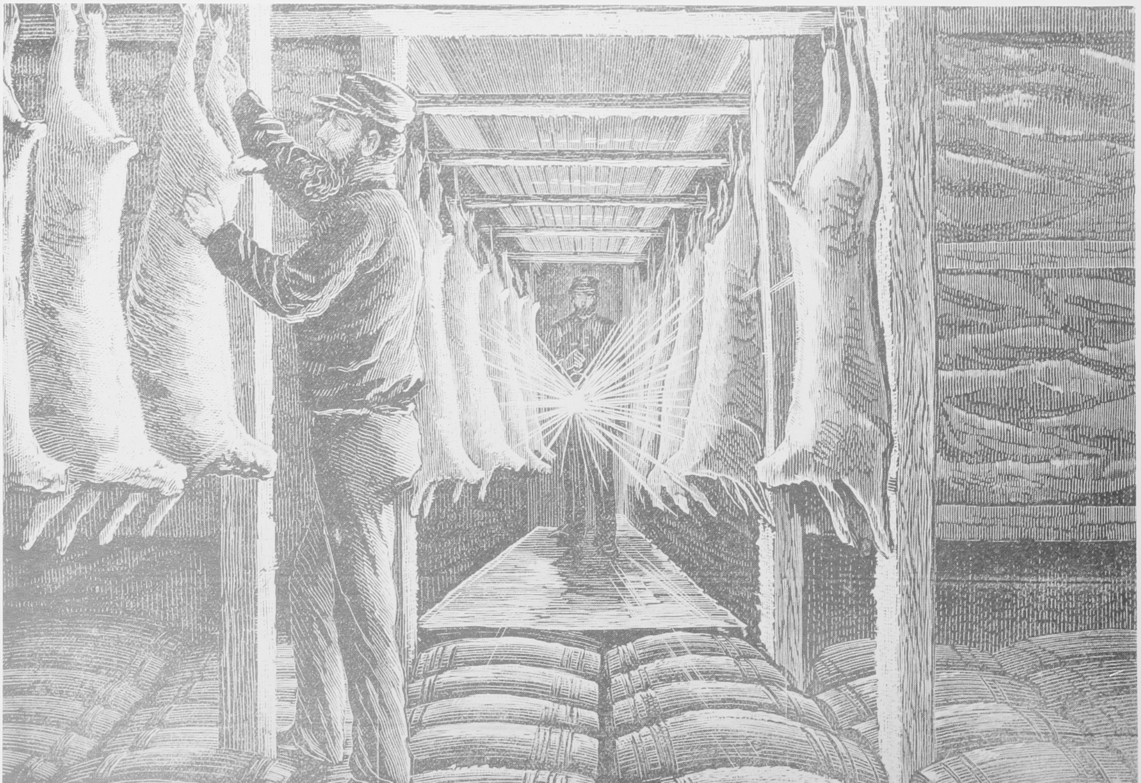
Above and top of opposite page: Nowra Co-op. Dairy Company Limited — milk depot at Bomaderry, about 1920. Although dairy cattle were shipped with the First Fleet in 1788, the dairy industry did not really begin until the 1820's when dairy herds appeared in the Illawarra district of New South Wales. Butter and cheese were sent north to Sydney by packhorse and later by ships which the farmers built and owned. Dairying continued to spread southwards and northwards into the Hunter River district, and cheese and butter were shipped from Sydney to the Californian goldfields in 1844. Nevertheless, dairying remained very much a local consumption industry until 1880. Technological developments in the years following — the invention of the first mechanical cream separator in 1881, the introduction of refrigeration by Thomas Mort in 1883 and the pasteurisation and overall improved hygiene of the 1890's — encouraged smaller dairy farmers to group together into co-operative factories which could afford the new equipment and rationalise the whole marketing process. The first such co-operative was the Pioneer Factory built at Kiama, on the south coast of New South Wales in 1883-4. The movement spread, the minimum for a factory being about thirty suppliers. By the end of the century, large modern factories were springing up, aided by the improved transport of rail and, later, of motor truck. To keep pace, the first Australian milking machines had been installed at the Bodalla Estate Company, in southern New South Wales, in 1892. By 1901, a commercial industry had been established and governments required all milk producers to be registered and inspected regularly.

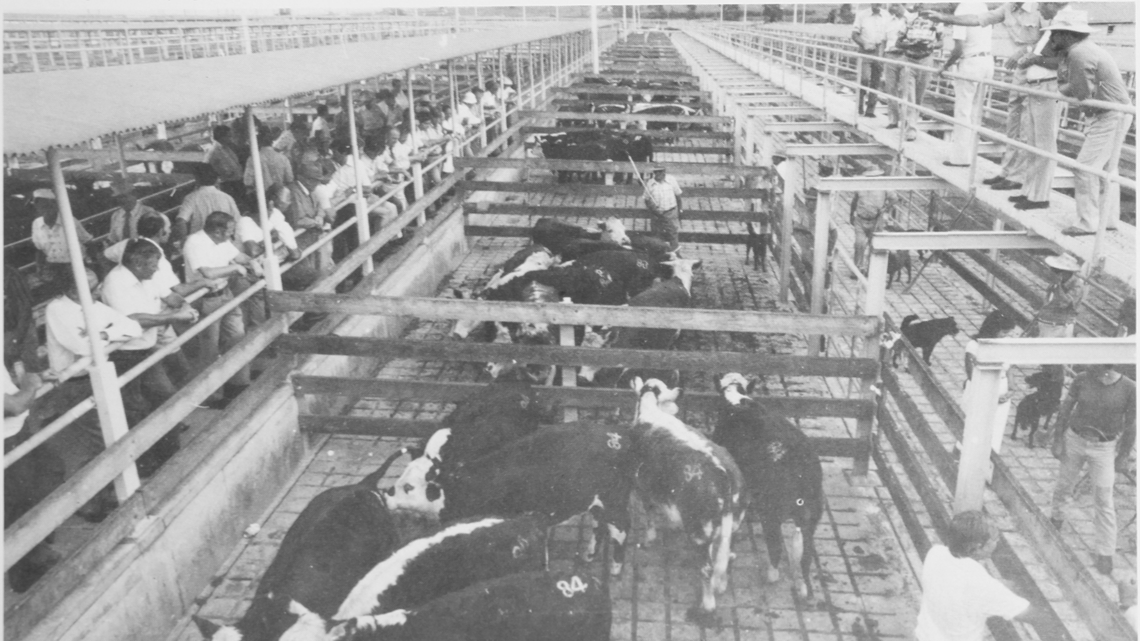
National Library of Australia



Bottom picture of opposite page: The freezing room of the steamship "Strathleven", 1879 (from the "Illustrated Australian News", 24 December 1879). Previous attempts to preserve meat by refrigeration over long distances had been costly failures, suffered by James Harrison in 1873 and Thomas Mort in 1877. In 1879, however, the first successful shipment aboard the "Strathleven" was made when thirty tons of Mort's meat and eighty tons of butter were sent to England. The "Strathleven" was an emigrant liner, chartered by the Scottish shipping firm of McIlwraith and McEacharn and fitted with a Bell Coleman chilling plant. The success of the "Strathleven" encouraged others, and a second refrigerated ship, the S.S. "Protos", was fitted out by a Melbourne company in 1881. The development of refrigeration meant that Australia then had enormous potential for the export of meat. By 1900, she was sending nearly one million chilled carcasses to many countries. By 1913, Australia provided about twenty per cent of Britain's meat imports, the mutton and lamb being mostly produced by New South Wales and Victoria.

Below: Cattle in Homebush saleyards, late 1970's. In the early colony, many settlers lived almost solely on meat and therefore built their own yards for killing and dressing. In the Sydney metropolitan area, abattoirs were set up last century at Glebe Island but, by 1900, they were seriously polluting the harbour, and were therefore moved to a larger and more appropriate site at Homebush. Today, the Homebush Abattoir Corporation's Meat Halls at Homebush Bay are the principal centres in New South Wales for the wholesale distribution of meat for human consumption. The photograph shows cattle on the hoof being inspected. Carcass butchers purchase their selections and deliver them to the abattoirs, where they are slaughtered, trimmed, inspected, chilled and delivered to the Meat Halls early the next day. In addition to the State Abattoir at Homebush, abattoirs owned by local government councils, co-operatives and private companies, both country and interstate, send large quantities of meat to the Meat Halls.

N.S.W. Department of Agriculture

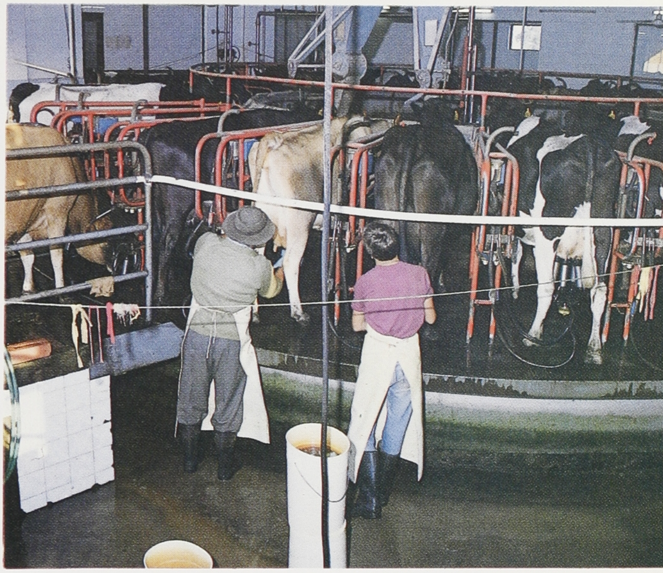


Promotion Australia

Coping with natural disaster — silage being removed from a pit to feed cattle at "Glen Elgin", Henty, New South Wales (above) and hay drop by plane (below). Last century, drought and flood were no strangers to Australian settlers. Unwise clearing of the land and compacting of its soil meant that floods could engulf the land more suddenly, instead of occurring only after exceptional periods of rain. Relief from such threat only came with the provision of catchment areas and the construction of reservoirs. Similarly, particularly in semi-arid regions, great droughts of three or more summers in duration occurred in every decade except the 1870's, the worst one being in 1896 and lasting for seven years. Today, during times of drought and flood, and during the winter when there is limited pasture growth, hay and silage (livestock feed made from green herbage) are used to maintain livestock. Thus, in spring, it is common to make large quantities of hay from surplus pasture growth, and there have been continual improvements in the production of hay-making and baling machinery. Silage is stored in pits, bunkers or silos, and is compressed and covered to exclude air so as to eliminate spoilage through fermentation. It is usually used for fodder in areas of heavy rainfall, where it is difficult to dry and cure hay. In the top photograph, the silage had lain in the pit for eighteen months before it was put to use. In the photograph below, an R.A.A.F. Caribou aircraft is loaded with fodder near Walgett in June 1983. This fodder was dropped to thousands of livestock stranded in flooded areas of north-west New South Wales. The Commonwealth and State Governments provide financial assistance to farmers affected by drought, flood, storm or bushfire through their natural disaster relief measures.

Sydney Morning Herald

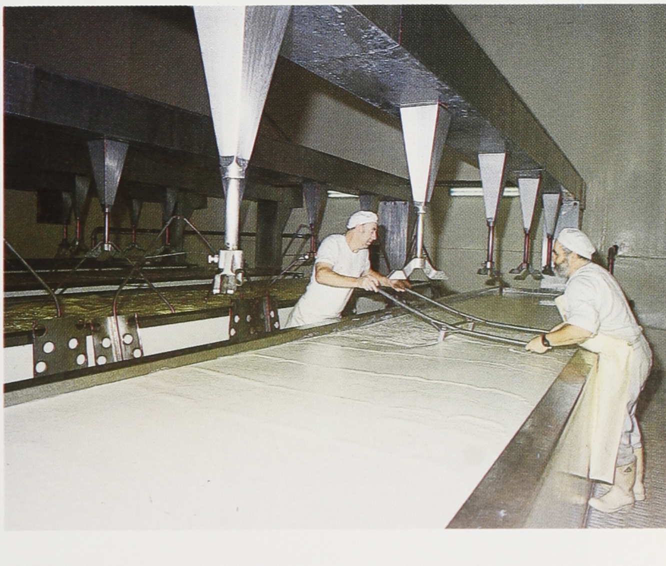
Below: Milking time, Bega dairy farm. Dairying in New South Wales developed along the higher rainfall regions of the coast. The northern dairy areas became the most intensively used, but the south coast was the first to modernise, under Thomas Mort in 1855 on the Bodalla run. Before the compulsory pasteurisation and improved hygiene of the 1890's, however, unclean milk remained a problem — it often became a disease carrier owing to its suitability for active development of bacteria. In 1892, the first milking machines in the country were installed at the Bodalla Estate Company, and their use spread rapidly, especially among the larger proprietors. The co-operative movement grew and, as transportation improved, road tankers collected milk from many producers for processing at central depots. Today, State Dairy regulations prescribe the design and layout of dairy buildings and the design of milking machines, with a view to maximising cleanliness and the smooth movement of the cows. In the photograph on the right, milking shed routine and hygiene are simplified by the highly automated nature of the machines, with their circular construction, dividing rails and leg and breeching chains.

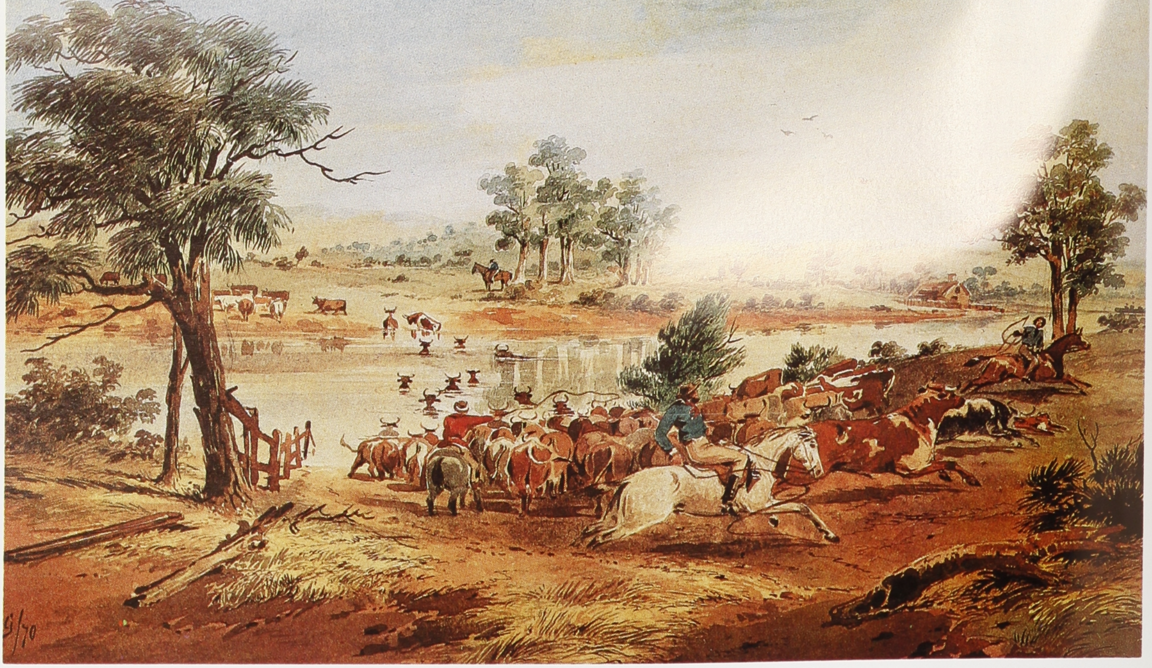


Department of Water Resources

Department of Water Resources

Right: Cheese-making, Bega. In the early days of the colony, cheese-making by hand was engaged in by many of the women, who were often solely responsible for dairying activities. Such sporadic production meant a lack of uniformity in both quantity and quality. In 1865, Thomas Mort established the first Australian cheese factory five years before one was set up in England (at Derby in 1870) and it was remarkable, for its time, in producing first-class cheese and butter in efficient and hygienic conditions. For many years production of cheese in the State was influenced by the higher profitability of producing butter. Although cheese consumption per head has risen about four-fold since the late 1930's, production in N.S.W. did not show any upward trends (after the peak in the 1930's) until the early 1970's. Considerable quantities of cheese are therefore imported from interstate and overseas. In recent years there has been an increased demand for fancy, including soft cheeses, and many of these are now being produced locally.





Dixson Galleries, State Library of New South Wales

"Droving" — a watercolour by Samuel Thomas Gill. Gill was only twenty-one when he arrived in Australia in 1839 and had already trained as an artist in England, but his adaptation to the Australian experience was thoroughgoing. The droving scene of the Australian outback was one to which he returned several times. In this painting, the stirring activity of the drovers, their horses and their cracking whips is balanced against the stolid stance of the cattle, the hovering birds and the calm peacefulness of the countryside. Gill's knowledge of the life of the stockman and his horse was matched only by his close attention to detail in the depiction of the Australian bush. The landscape surrounding this droving scene is lovingly but accurately recorded and Gill has achieved a sense of detachment contrasting strongly with the sentimentalist approach of many of his contemporaries.

Royal Agricultural Show, Easter, 1985. Regular agricultural shows first appeared in New South Wales about the middle of the nineteenth century and they grew out of the need to compare and improve methods on the land. The first Mudgee Show was held in 1848 and became a popular annual event. In the 1860's and 1870's, representative agricultural societies were formed in nearly all provincial centres, and included machinery agents, shopkeepers and squatters as well as farmers. The result was that shows like the Wagga Wagga Agricultural Society's first show in 1871 catered to a wide range of interests. From 1869 on, Royal Agricultural Societies were formed in every Australian capital city and the contests thus became state-wide and a bridge between the city and rural dweller. In Sydney, the first show held by the Agricultural Society of New South Wales opened in the Cleveland Paddock (later Prince Alfred Park) on 3 May 1869 and lasted four days.

Royal Agricultural Society of N.S.W.

Meat Cattle *(a)*, in Statistical Divisions
(At 31 March)

Statistical divisions	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Sydney	34,119	34,994	36,406	33,086	34,651	37,443
Hunter	442,365	480,377	504,173	504,504	526,830	550,616
Illawarra	60,451	61,632	61,764	60,618	66,632	73,597
Richmond-Tweed	404,598	385,460	394,161	368,738	369,546	367,073
Mid-North Coast	432,129	427,830	452,321	438,453	451,793	465,109
Northern	1,185,439	1,207,882	1,224,693	1,264,639	1,325,968	1,387,283
North Western	583,422	588,191	496,346	520,465	537,170	538,304
Central West	493,239	474,269	371,097	373,879	400,672	420,597
South Eastern	451,630	431,837	342,624	349,374	381,364	417,096
Murrumbidgee	425,732	407,277	312,294	300,747	316,401	334,366
Murray	427,881	414,431	315,609	316,974	323,304	335,290
Far West	56,679	59,534	33,685	39,474	40,931	44,886
Total, N.S.W.	**4,997,684**	**4,973,714**	**4,545,172**	**4,570,951**	**4,775,263**	**4,971,660**

(a) Cattle and calves kept mainly for meat production, including bulls and bull calves used or intended for service.

Pigs

Pig production in the State has become more specialised in recent years as smaller piggeries, forced out of the industry by rising costs, have been replaced by larger, more intensive piggeries. In 1986, 57 per cent of pigs were in herds of 1,000 pigs or more. The next table shows the number of establishments with pigs and the number of breeding and other pigs in 1976 and the last six seasons. Slaughterings for the same years are shown later in this division, while the number of pigs at decennial intervals from 1861 is shown at the beginning of this division.

Breeding and other Pigs
(At 31 March)

Item	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Establishments with pigs	**8,308**	**5,817**	**4,703**	**4,589**	**4,271**	**3,739**	**3,499**
Type of pig —							
Boars	10,282	8,680	7,900	8,189	7,762	7,477	7,320
Breeding sows *(a)*	108,225	118,953	109,779	112,094	112,179	110,792	107,462
Other	590,278	659,320	648,254	674,063	679,270	695,294	683,129
Total pigs	**708,785**	**786,953**	**765,933**	**794,346**	**799,211**	**813,563**	**797,911**

(a) Includes gilts intended for breeding.

In 1986, 29 per cent of pigs were in the Murray Statistical division, 15 per cent were in the Central West Statistical division, with Richmond-Tweed and Northern Statistical divisions each having 12 per cent. In recent years there has been a significant trend towards pig production in the Murray Statistical division, and a decrease in the relative importance of the Coastal Statistical Areas, largely due to the trend towards large-scale pig specialisation. In earlier years pig farming and dairying, as associated activities, caused pig raising to be confined more to the dairying areas of the Coast than has been the case in recent years. The following table shows the number of pigs in Statistical Divisions of New South Wales at 31 March 1976 and in recent years.

Pigs in Statistical Divisions
(At 31 March)

Statistical divisions	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Sydney	63,303	71,348	70,412	71,615	67,956	65,670	33,524
Hunter	47,403	39,984	38,988	44,202	45,737	43,440	41,807
Illawarra	4,628	5,071	4,790	4,668	6,489	4,707	4,383
Richmond-Tweed	89,223	81,507	75,730	78,836	76,552	77,802	80,358
Mid-North Coast	22,358	19,613	18,285	19,528	18,337	16,912	15,035
Northern	93,564	95,731	85,802	93,233	94,321	98,151	96,092
North-Western	84,979	64,241	55,326	59,736	54,112	52,447	50,155
Central West	153,674	134,028	116,260	118,821	112,252	107,755	116,688
South-Eastern	51,017	51,125	51,218	59,851	60,961	60,790	64,554
Murrumbidgee	62,024	70,287	65,433	54,106	52,964	62,315	60,577
Murray	36,107	153,872	183,381	189,419	208,691	223,249	234,423
Far West	505	146	308	331	839	325	315
Total, N.S.W.	**708,785**	**786,953**	**765,933**	**794,346**	**799,211**	**813,563**	**797,911**

Poultry

Poultry farming in New South Wales includes two distinct and highly specialised industries: egg production and meat production. The birds bred for egg production combine a high egg-laying rate with low flock mortality, while the meat-producing strains have a fast growth and an improved feed-meat conversion rate. Over 90 percent of poultry for both meat and egg production is raised in the Sydney, Hunter, and Northern Statistical divisions.

The number of fowls (including egg strain hens and pullets, meat strain chicken and breeding stock) on establishments with agricultural activity at 31 March is shown, for 1976 and the last six years, below:

	'000		*'000*
1976	19,496	*1984*	19,404
1981	21,538	*1985*	21,100
1982	20,259	*1986*	20,575
1983	21,047		

Details of poultry slaughtered and dressed weights are given later in this chapter, with data for turkeys and stags being aggregated into that for hens. A subdivision on egg production and marketing can also be found later in this chapter.

Goats

Goats in New South Wales are mainly kept for fibre (mohair, cashmere) and milk production. The number of goats in New South Wales at 31 March 1986 was 284,866, with most goats located in the Northern, North Western, South Eastern and Central West Statistical divisions.

Animal Health

Diseases of various kinds exist amongst livestock in New South Wales, but the State is free from many of the more serious epizootic and parasitic diseases (e.g., rinderpest, foot and mouth disease, rabies, swine fever, glanders, sheep scab, and trypanosomiasis) which cause heavy losses in other countries. Certain diseases are notifiable under the Stock Diseases Act 1923 and powers are provided for the inspection and testing of stock and for the detention, seizure, treatment, quarantine, and destruction of diseased stock.

The most serious diseases dealt with under the Act are bovine tuberculosis, anthrax, bovine brucellosis, and cattle tick. The national "Bovine Brucellosis and Tuberculosis Eradication Campaign" is aimed at the elimination of bovine brucellosis and tuberculosis. In New South Wales producers are fully compensated for cattle slaughtered under this campaign. The Commonwealth Government contributes 75 per cent of the compensation for cattle slaughtered for bovine tuberculosis and brucellosis, with the remainder made up from funds collected under the Cattle Compensation Act 1951.

The *Live-stock Slaughter Levy Act 1964* established the National Cattle Disease Eradication Trust Account. The *Live-stock Slaughter Levy Collection Act 1964* and the *Live-stock Export Charge Act 1977* make provisions to impose, on livestock slaughtered or exported, a levy or charge which is paid into the Trust Account. The operative rates for the levy and the charge are shown later in this chapter under the Subsection, "Levies on Livestock Slaughtering". With the approval of the Minister for Primary Industry, funds may be transferred from the Account to the States, or employed to meet the costs of the Commonwealth Government, for the purpose of the eradication of endemic cattle diseases, including bovine brucellosis and tuberculosis.

Cattle tick, a serious external parasite of cattle and other livestock, first extended into New South Wales in 1907 and is now confined to the far north coast. The control of cattle tick is important not only to limit the damage from the tick itself, but also to control the incidence of tick fever, a serious disease of cattle caused by blood parasites transmitted by the cattle tick. The Board of Tick Control administers the policy on control of cattle tick as determined by the Department of Agriculture. The current policy is one of control within the Tick Quarantine Area (TQA), and eradication where infestations are detected outside the TQA. Cattle are treated prior to movement from the TQA to other parts of N.S.W.

Interstate movements of livestock are controlled. Inspections are made along the Queensland border owing to the presence of cattle tick in that State. Power to make these inspections and to enforce the dipping of cattle, sheep, goats, and horses before they enter New South Wales is provided under the Stock Diseases Act.

Since 1969, New South Wales cattle over three months old delivered for sale or slaughter within the State must have a tail tag attached, so that carcasses found to be diseased at abattoirs may be traced to their place of origin.

The control of livestock diseases is administered by the Animal Health Division of the N.S.W. Department of Agriculture. Veterinary officers and inspectors investigate livestock sicknesses and deaths, control diseases scheduled under the Stock Diseases Act, advise stock owners on the control of other diseases and on livestock health matters in general. Department staff are assisted in this overall task by the veterinary inspectors employed by the Pastures Protection Boards. Five regional laboratories provide a diagnostic service to veterinarians, both official and private, who service rural livestock industries. The Central Veterinary Laboratory at Glenfield provides a specialised diagnostic and reference service.

At the McMaster Animal Health Laboratories, located in the grounds of the University of Sydney, extensive scientific investigation of matters affecting animal health is undertaken by the Commonwealth Scientific and Industrial Research Organization (CSIRO), in co-ordination with similar activities in other States.

Cattle and Swine Compensation

To assist in the eradication of cattle disease compensation is paid, in terms of the Cattle Compensation Act 1951, for cattle and carcasses condemned because of certain diseases. Finance to meet compensation payments is available from the cattle Compensation Fund, which receives stamp duty on cattle slaughtered in New South Wales and interest on accrued capital. Compensation is also paid, in terms of the Swine Compensation Act 1928, for pigs and pig carcasses condemned because of certain diseases. Finance to meet these payments is obtained from interest on the Swine Compensation Fund's capital. Income tax relief is available to farmers whose cattle are slaughtered for the purpose of eradicating or controlling disease.

Veterinary Surgeons

The Veterinary Surgeons Act 1986, provides for the registration of veterinary surgeons and regulation of the practice of veterinary science, and is administered by the Board of Veterinary Surgeons. The number of registered veterinary surgeons in New South Wales was 1,757 at 30 April 1987. At 1 April 1987, there were 431 licensed veterinary hospital.

Marketing of Livestock

Control of Livestock Export Trade

The export of livestock from Australia is controlled by the Australian Meat and Live-stock Corporation (A.M.L.C.) under the provisions of the *Australian Meat and Live-stock Corporation Act 1977*. All cattle, sheep, goats and buffaloes, and any other prescribed animals, may be exported only by licensed exporters and subject to such conditions and restrictions as are imposed by the Corporation (at 18 February 1987 there were 21 licensed livestock exporters in New South Wales). The Corporation aims to ensure that livestock are exported according to the quality standards specified by the importer. To this end it carries out spot inspections of sheep and cattle prior to export and liaises closely with the livestock export industry to develop and improve Australia's reputation as a supplier of quality livestock. In recent years, cattle for slaughter have been exported to Japan, Malaysia, Singapore, Brunei, Indonesia, Saudi Arabia, Egypt, United Arab Emirates, Bahrain and Kuwait. Cattle for breeding purposes have been mainly exported to Indonesia, Malaysia, Cuba, China, Papua New Guinea, Philippines, Kuwait, South Korea and Saudi Arabia. Sheep for slaughter have been exported mainly to the Middle East countries such as Kuwait, Saudi Arabia, United Arab Emirates and Libya and in 1985-86 exports to all destinations totalled 7.07 million head, of which 106,894 were produced in New South Wales. The export of breeding sheep increased sharply in 1986, with large shipments of ewes going to Saudi Arabia.

Prices of Livestock

The average price per kilogram (compiled by the New South Wales Department of Agriculture) of certain classes of livestock in the metropolitan saleyards at Homebush, in the last three years is shown below. The averages stated are the means of the monthly prices in each calendar year, the monthly prices being the averages for selected classes of stock sold during the month. The prices shown for cattle are quoted for liveweight whereas the prices for sheep and pigs are for dressed weights.

	1984 *($ per kg)*	*1985* *($ per kg)*	*1986* *($ per kg)*
Sheep and lambs —			
Wethers, 22 kg and under	0.56	0.34	0.39
Ewes, 22 kg and under	0.48	0.33	0.30
Lambs, 16.1 kg to 19 kg	1.18	0.87	1.08
Cattle —			
Steers, 250 kg and under	0.95	0.97	0.94
Cows, 201 kg to 250 kg	0.71	0.73	0.74
Pigs —			
Baconers, 41 kg to 73 kg	1.69	1.67	1.59
Porkers, 27 kg to 41 kg	1.71	1.71	1.66

Prices of livestock vary during each year, and from year to year, under the influence of climatic and market conditions. When pastures are deteriorating during periods of dry weather, supply is increased as fat stock are hastened to market, causing prices to decline; with the arrival of rain, livestock may be withheld from the market for fattening or breeding purposes, and prices tend to rise. Prices also vary according to seasonal factors such as the times of shearing, mating, and lambing and with wool prices. Demand conditions affecting livestock prices at Homebush are related to the needs of the Sydney region especially, and the level of export and interstate trade.

Livestock and Meat Research

Sheep, Cattle (Beef), Buffalo and Goat Research

Funds for research into problems of the livestock and meat industry are obtained from a levy imposed on sheep, cattle, and other livestock slaughtered in Australia. Part of the proceeds of the levy (75 cents per head of adult cattle and buffalo, and 7.5 cents per head of sheep, lambs and goats as of 31 December 1986) is allocated to research into the scientific, technical, and economic problems connected with the industry. Similar charges are imposed on the export of live animals. The Commonwealth Government makes a matching contribution, on a dollar for dollar basis, to meet expenditure on research.

In New South Wales, research sponsored by the Australian Meat and Live-stock Research and Development Corporation is being undertaken by the Department of Agriculture at agricultural research stations and on several private properties. Herd improvement based on selective breeding methods, animal response to pasture improvement, the milk production of beef cows, and other breeding and feeding problems have been investigated. The Bureau of Agricultural Economics is continuing research into the economics of meat production, and the CSIRO and the Universities of Sydney, New South Wales and New England are engaged on several scientific and technical research projects concerned with beef, mutton, and lamb production.

The New South Wales Department of Agriculture operates a number of research stations on which sheep breeding and feeding problems are investigated. Among these are the Trangie Agricultural Research Station where the work is concentrated on Merino breeding, and the Tamworth Agricultural Research Station which is involved with sheep fertility. At Glenfield Veterinary Research Station, sheep blowfly studies and noxious and feral animal investigations are carried out.

Dairy Cattle Research

The Dairy Research Council, set up under the *Rural Industries Research Act 1985*, administers a program of scientific, technical, and economic research into the dairy industry.

For 1985-86 the Minister for Primary Industry approved the allocation of $1.6m on a program comprising projects to be conducted by the CSIRO, State departments of agriculture, universities and other organisations.

The program comprises farm research, dairy manufacturing research, and a dairy education scheme. Farm research has been directed to the investigation of husbandry and management methods in order to improve efficiency and reduce costs. Approved projects cover a number of aspects of animal health, nutrition and productivity, herd improvement, pasture research, milking systems and improved management techniques. The education scheme comprises travel and study grants and post graduate studentships to serve the industry from farm or factory through to technologists and research scientists. Manufacturing research is covered in the section Dairy Industry Research shown later in this division.

Dairy Herd Improvement Program

The N.S.W. Department of Agriculture operates the Dairy Herd Improvement Program, comprising a herd recording scheme and a large-scale breeding program based on artificial breeding. The bull stud for the breeding program is at Graham Park Breeding Service, Berry.

Herd recording enable farmers to ascertain the productivity of individual cows, to cull unprofitable animals, to retain the progeny of those of higher productive ability, to determine the merit of the sire, and so to establish herds of high-producing cows.

The herd recording scheme is conducted in two sections: an official herd recording section for registered pure bred cows for which production information is certified by the Department; and a group herd recording section for grade and registered pure bred cows for which certification of records is not required.

The number of dairy cows recorded under the scheme in 1985-86 was 88,330 of which 16,646 were recorded in the official herd recording section.

In 1985-86, farmers were required to meet a minimum of 85 per cent of the total costs of recording and the N.S.W. Government the balance. Farmer proportion of cost will increase so that the system is self-funding from 1987-88. Official recording section members pay a higher rate than group recording section members.

The artificial breeding of dairy cattle is a means of accelerating improvement in the quality and productivity of cattle. Its use is also valuable in controlling disease. The amount of improvement is dependent on the quality of bulls used in the programme. Quality is best measured by Australian Breeding Values (ABV's).

Pig Industry Research and Pork Promotion

Under the *Pig Slaughter Levy Act 1971* an operative levy of 20 cents for research and $1.08 for promotional activities is collected on each pig slaughtered for human consumption. The Pig Research Council's funds from the levy are matched on a dollar for dollar basis by the Commonwealth Government. Broad categories of research supported by funds from the Pig Research Trust Fund are health and disease, welfare, nutrition processing, effluent disposal or utilisation, marketing, and genetics and reproduction. The funds in the main are allocated to State Agricultural Departments, Universities and Colleges of Advanced Education, the CSIRO and to also assist other research institutions and studentships. The N.S.W. Department of Agriculture conducts research into pig nutrition problems at Wollongbar Agricultural Research Station on the far North Coast. The activities of the Pork Promotion Committee are funded entirely by the promotion levy.

Poultry (Meat) Research

In terms of the *Meat Chicken Levy Act 1969* a levy is imposed on the owners of hatcheries which hatch 20,000 or more meat chickens in any one year.

Research on, and diagnosis of, poultry diseases are conducted at the Department of Agriculture's Glenfield Veterinary Research Station. Livestock officers of the Department assist producers throughout the State. Random sample tests to assess laying strains and the quality of local eggs are conducted at the Departments Seven Hills Agricultural Station.

LIVESTOCK SLAUGHTERED AND MEAT PRODUCED

Livestock Slaughtered (Other than Poultry)

The following table shows the number of stock slaughtered in the State during 1975-76 and recent years.

Livestock Slaughtered *(a)* N.S.W.
(Year ended 30 June)
('000)

Livestock	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Cattle —							
Bullocks and steers *(b)*	1,391	967	887	900	749	663	747
Cows *(c)*	1,209	896	753	974	643	645	776
Calves	402	321	265	363	188	167	193
Total cattle	**3,002**	**2,184**	**1,906**	**2,237**	**1,579**	**1,475**	**1,715**
Sheep —							
Sheep	3,695	4,164	2,475	3,044	1,880	2,482	3,151
Lambs	5,516	5,515	5,463	5,919	6,231	5,964	6,358
Total Sheep	**9,211**	**9,679**	**7,939**	**8,964**	**8,112**	**8,446**	**9,509**
Pigs	**928**	**1,191**	**1,061**	**1,085**	**1,106**	**1,065**	**1,289**

(a) Includes livestock slaughtered in slaughtering establishments and on establishments with agricultural activity. Excludes condemned. *(b)* Includes a small number of bulls. *(c)* Includes heifers.

The New South Wales Meat Industry Authority was constituted under the Meat Industry Act 1978. The Authority is responsible for regulating and licensing of abattoirs, slaughterhouses, knackeries, meat processing plants, meat markets, saleyards, meat vans, pet food vans, and animal food processing plants. The Authority provides the strip branding schemes for consumer identification of red meat, and in co-operation with the Department of Agriculture, a livestock market reporting service. The operations of the Authority are funded by the imposition of a levy on meat producers.

The State Abattoir and the Homebush Saleyards, controlled by the Homebush Abattoir Corporation, are located at Homebush Bay (Sydney). The carcass butchers purchase stock on the hoof, and deliver them to the Abattoir, where they are slaughtered and treated by the Corporation's staff, and the chilled carcasses are delivered to the owners at the Abattoir Meat Halls early on the following morning. The Corporation has the right to trade in meat and meat products in its own right.

In addition to the State Abattoir at Homebush there are abattoirs throughout N.S.W. operated by local government councils, co-operatives, or companies.

Levies on Livestock Slaughtering

In order to provide funds for the Australian Meat and Live-stock Corporation (A.M.L.C.), and for research into problems of the livestock and meat industry, levies are imposed on livestock slaughtered in Australia. The *Live-stock Slaughter Levy Act 1964* prescribes maximum rates but the operative rates are fixed on the recommendation of the Australian Meat and Live-stock Corporation, after consultation with appropriate industry groups and, as necessary, with the Australian Meat and Live-stock Research and Development Corporation. The operative rates of slaughter levies operating as at 1 December 1986 are shown below.

	Cattle and buffaloes	*Calves 41-90 kg*	*Bobby calves 0-40 kg*	*Sheep*	*Lambs*	*Goats*
			cents per head			
A.M.L.C. administration	330.0	118.8	33.0	*(b)*19.2	*(c)*49.2	*(b)*16.2
A.M.L.R.D.C.75.0	20.0	5.5	7.5	7.5	7.5	
Disease eradication scheme	300.0	100.0	30.0	—	—	—
Export Inspection Charge (payable only at abattoirs registered as export establishments *(a)*	261.0	87.0	26.0	26.0	26.0	26.0

(a) In addition to this charge, a Meat Export Charge of 2.4 cents (bone out equivalent) is also payable. *(b)* Includes 2 cents for sheepmeats promotion. *(c)* Includes 30 cents for lamb promotion.

A levy is imposed on pigs slaughtered in Australia for human consumption under the *Pig Slaughter Levy Act 1971* which prescribes a maximum rate although the operative rate of levy is fixed on the recommendations of the Pig Research Council and the Pork Promotion Committee. At present the operative levy is set at $1.28 per pig slaughtered (20 cents towards research and 1.08 cents towards promotion).

Meat Produced (Other than Poultry)

Details of meat production in New South Wales for 1976 and for the last six seasons are shown in the following table.

Meat Produced, N.S.W.
(Year ended 30 June)
(tonnes)

Type of meat	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Beef and veal *(a) (b)*	535,502	372,833	336,952	369,251	288,731	270,305	318,924
Mutton *(a) (b)*	72,304	80,412	50,692	58,505	38,811	49,564	62,580
Lamb *(a) (b)*	94,300	92,394	96,087	99,447	111,367	103,076	108,868
Pig meat *(b) (c)*	44,698	58,537	54,273	57,456	59,149	58,686	75,502
Bacon and ham *(d) (e)*	21,344	25,644	29,220	22,457	r21,828	r20,616	20,476

(a) Bone-in weight basis. *(b)* Includes the relatively small quantities produced from stock slaughtered on establishments with agricultural activity. *(c)* Bone-in weight of dressed carcasses. Includes meat later converted into bacon and ham. *(d)* Cured weight. Pressed ham and canned bacon and ham are included on a bone-in weight basis. *(e)* Excludes production on establishments with agricultural activity (negligible in recent years).

Beef and Veal

A revival in export markets and prices in the 1975-76 and 1976-77 seasons offset to some extent the severe reduction in producers' profitability which occurred during 1974-75. The heavy increase in slaughterings over the four seasons to 1977-78 reflected not only increased local consumption and a resurgence of exports but a movement out of the industry, especially by smaller producers. Sharply rising cattle prices stemming from the increased strengthening of export demand and a moderate reduction in yardings were the main feature of the beef market in 1978-79.

Production of beef and veal has, in general, declined since 1978-79 with a reduction in the number of cattle slaughtered, lower herd numbers generally, and only a modest level of herd replacement. Drought conditions in the early 1980's have been largely responsible for this trend although herd numbers increased marginally from 1984 onwards. The short term trend, however, is stability at the current levels.

Sheep Meat

There has been a noticeable tendency in recent years for mutton production to fluctuate under the influence of developments in export markets. However, sheep meat production generally has remained far below the peak years of the early 1970's, as a result of reduced sheep numbers. Drought conditions in the early 1980's caused a further reduction in sheep numbers as many producers sold surplus stock for slaughter. This resulted in an initial increase in mutton production, followed by a severe decline in 1982. There was a marginal increase in 1983, but a decline in mutton production again in 1984 as many animals that would normally have been sent for slaughter were retained for post-drought, flock rebuilding programs. The production of mutton had increased significantly by the end of 1986, as a result of the consistent build up in total sheep numbers, but this is still far below the levels of the 1970's.

Pig Meat

Pig numbers and meat production increased during 1977, after a period of industry rationalisation which indicated a tendency towards more intensive, larger scale production methods. Continued strengthening of domestic demand and an expected decline in average fixed costs meant a further expansion of pig meat output from 1979 to 1981. Largely because of the increased supply, pig meat has become more price competitive in recent years offsetting, at least partially, the lower beef and veal production. Pig meat prices have declined since 1982, although prices did rise for a period during the last few months of both 1984 and 1985 and then fell marginally during 1986.

Poultry Slaughtered

Statistics of poultry slaughterings in New South Wales are considered to give a high level of coverage in respect of the slaughterings of meat strain chickens, and the slaughtering of ducks and turkeys. They do not purport to cover all poultry slaughterings in the State, as many small producers are excluded from the collection.

Details of poultry slaughtering in commercial poultry slaughterhouses in New South Wales in 1976 and for each of the last six years are shown in the following table.

Poultry Slaughtered for Human Consumption in N.S.W. *(a)* (Year ended 30 June)

Type of poultry	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
			Poultry slaughtered ('000)				
Chickens (broilers, fryers, or roasters)	63,184	95,526	85,998	89,148	83,691	93,485	95,781
Hens, turkeys, and stags	*(c)*5,616	6,028	5,563	6,064	5,435	5,642	4,074
Ducks and drakes		1,370	1,620	1,499	1,220	1,592	1,637
			Dressed weight of poultry slaughtered ('000 kg) *(b)*				
Chickens (broilers, fryers, or roasters)	83,036	121,980	111,972	117,463	107,272	r126,263	128,407
Hens, turkeys, and stags	12,510	15,809	15,749	18,089	14,374	17,176	19,807
Ducks and drakes	2,256	2,859	2,685	2,314	2,998	2,983	
Total dressed weight of poultry slaughtered	**95,546**	**140,045**	**130,581**	**138,237**	**123,961**	**148,462**	**151,197**

(a) Includes production in the Australian Capital Territory. *(b)* Dressed weight of birds, pieces, and giblets, as estimated by individual producers. *(c)* Separate details for 1976 are not available.

The Poultry Processing Act 1969, provides for the registration of plants in which poultry is processed for sale, and also for the regulation and control of the processing of poultry in these plants. Inspectors are appointed under the Act, and penalties are imposed for offences. It is an offence to process poultry if, as a result of the processing, the water uptake of the poultry exceeds 8 per cent.

Under the Poultry Meat Industry Act 1986, a Poultry Meat Industry Committee was established to provide guidelines for the development of contracts and determine the level of growing fees to contract growers. The functions of the Committee also include the regulation of production capacity and the settling by negotiation of dispute between growers and processors. It reports to the Minister for Agriculture its recommendations regarding the poultry meat industry.

Value of Livestock Slaughterings and Disposals

The following table shows the value of slaughterings and disposals of livestock in New South Wales in the last six years. The *gross value* shown represents the items of agricultural production valued at the market place. The *local value* represents the gross value less the estimated costs of marketing.

Livestock Slaughterings and Other Disposals *(a)*, Gross and Local Values, N.S.W. ($'000)

Livestock (b)	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Gross value			
Cattle and calves	568,338	419,207	570,394	470,487	492,815	570,398
Sheep and lambs *(c)*	170,555	150,200	120,715	143,602	137,187	116,149
Pigs	89,345	101,274	94,763	82,928	107,380	127,103
Poultry *(d)*	176,971	174,442	190,452	182,499	224,717	257,913
Total gross value	**1,005,209**	**845,123**	**976,324**	**879,515**	***(e)*962,492**	**1,071,563**
			Local value			
Cattle and calves	529,302	384,225	521,628	434,110	454,909	521,150
Sheep and lambs *(c)*	150,934	132,148	101,866	123,750	115,940	91,460
Pigs	82,068	93,059	86,072	75,319	97,139	116,276
Poultry *(d)*	176,922	174,395	190,409	182,447	224,679	257,848
Total local value	**939,226**	**783,827**	**899,974**	**r815,626**	***(e)*892,799**	**986,734**

(a) Includes adjustment for net exports overseas of live animals. *(b)* Excludes interstate movements of livestock between New South Wales and Victoria. *(c)* Excludes value of wool on skins. *(d)* Includes poultry produced in the Australian Capital Territory but slaughtered in New South Wales. *(e)* Includes the value of goat slaughterings: gross value = $393,705 and local value = $131,235.

Prices received for cattle and sheep suffered a severe reversal in the mid 1970's and, largely as a result of this, the local value of slaughterings and disposals fell considerably. Low prices led to an increase in cattle slaughterings and disposals from 1976 to 1978. Cattle slaughterings have declined since then, mainly due to prolonged drought conditions which discouraged herd replacement, affecting the availability of cattle for slaughter. This fall in cattle slaughterings, however, was at first slightly counterbalanced by increased slaughterings of sheep and lambs, but these had declined by 1982 and in general continued to decline to 1985, due to the reduction in the availability of animals. Over recent years, the value of poultry slaughterings and disposals has risen substantially, notwithstanding the slight declines in 1981-82 and in 1983-84.

Meat Exports

The United States has in recent years been the principal market for Australian beef; Japan and the Middle East are important markets for Australian mutton; and the Middle East is the major market for Australian lamb. During 1985-86, Australian exports of beef and veal to the United States were 309,586 tonnes, shipped weight, accounting for 60 percent of total beef exports. Australian exports of mutton to Japan totalled 30,141 tonnes (accounting for 28 percent of total mutton exports) and to the Middle East, 42,308 tonnes (39 percent). Exports of lambs to the Middle East totalled 22,687 tonnes, which was 44 percent of total lamb exports.

Fluctuations in overseas exports from Australia are due to many factors including seasonal conditions in all meat producing countries, world currency fluctuations and import controls, political instability, competition from other meat supplying countries, and the general level of economic activity in importing countries.

The following table shows the quantity and value of meat exports in recent years, where New South Wales was the state of origin for the produce. *State of origin* is defined as the State in which the final stage of production or manufacture occurs.

Overseas Exports *(a)* of Fresh, Frozen or Chilled Meats from New South Wales (Year ended 30 June)

Type of meat	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
			Quantity exported (tonnes)			
Beef and veal	95,844	82,804	103,781	66,443	r55,552	74,690
Mutton	40,360	18,583	21,139	10,128	11,598	28,751
Lamb	6,683	4,350	5,845	8,162	4,719	11,931
Poultry	5,962	2,933	1,474	757	772	897
			Value of exports ($A'000 f.o.b.)			
Beef and veal	203,776	157,062	214,501	158,643	r141,122	200,498
Mutton	46,677	23,842	27,054	13,755	16,633	31,266
Lamb	12,079	7,429	10,153	13,899	8,683	17,892
Poultry	9,310	5,110	2,906	1,485	1,393	1,639

(a) Excludes ships' stores.

Control of Meat Export Trade

The export of Australian meat is controlled by the Australian Meat and Live-stock Corporation (A.M.L.C.) under the provisions of the *Australian Meat and Live-stock Corporation Act 1977* and the Department of Primary Industry under the *Export Control Act 1982*. Beef, veal, buffalo meat, mutton, lamb and goat meat, and any other prescribed meat, meat products, and edible offal may be exported only by licensed exporters and subject to such conditions and restrictions as are imposed by the Corporation.

Special attention is given to the preparation and transport of meat for export. The meat is inspected by veterinary officers of the Department of Primary Industry, to ensure it reaches specific standards of quality, hygiene, and presentation, and its shipment is stringently regulated by that Department.

Meat Agreement with the United States of America

The level of meat exports from Australia to the United States of America is governed by a quota system which is regulated by the U.S. Meat Import Law, introduced in December 1979. A particular feature of this law is that meat imports into the U.S.A. are restrained to ten percent above the quota level. This level above the quota level is called the trigger level. When imports in any year approach the trigger level, then, to avoid invoking quotas, individual restraint levels may be negotiated with supplying countries. Import access is adjusted each year in accordance with the level of U.S. production and changes in the U.S. cattle herd. U.S. demand is a major determinant of profitability within the Australian cattle industry. The U.S. regulation currently guarantees that a minimum of 567,000 tonnes of meat (comprising fresh, chilled, and frozen cattle meat; meat of goats and sheep other than lamb; and prepared, but not preserved, beef and veal) will be imported. Australia's share is based on traditional access levels and is approximately 50 per cent of this amount. Restrictions on Australian meat exports to the U.S.A. were not necessary during 1986, as the trigger level of 598,000 tonnes was not reached.

DAIRY PRODUCTION

Although natural physical features and climatic conditions in parts of New South Wales are particularly suitable for dairying, the industry developed slowly until towards the end of the nineteenth century.

The introduction of refrigeration, pasteurisation, and other processes for the treatment of milk made possible the manufacture and distribution of perishable dairy products in the warm climate, and gave a marked impetus to the industry. With improvement in shipping facilities, butter and processed milk products became important export items.

The development of co-operative movements also proved a great benefit to the industry in both the manufacture and distribution of produce. Dairying in New South Wales reached a peak in 1933-34.

After 1933-34, a steady decline in the number of establishments producing milk and cream for sale commenced, as smaller producers began to leave the industry as a result of rising production costs and low prices for butterfat. Other contributing factors were more lucrative returns from other forms of agriculture and urban land development. This decline continued at varying annual rates until the mid 1970's when signs of stabilisation in the industry began to emerge. The decline in the number of commercial dairies (equivalent to number of registered suppliers excluding dormant dairies) is illustrated by the following figures supplied by the Department of Agriculture and the New South Wales Dairy Corporation.

1933	23,550	*1981*	3,256
1940	20,949	*1982*	3,096
1950	16,960	*1983*	3,056
1960	14,871	*1984*	2,987
1970	9,061	*1985*	2,838
1980	3,601	*1986*	2,603

Milk production, however, has not dropped in the same proportion as the decline in the numbers of dairies. Approximately 65 percent of milk produced in 1985-86 was used for liquid consumption.

Production of Dairy Products in New South Wales

Whole Milk

Actual production of whole milk by New South Wales dairy farmers is not recorded.

The following table shows the quantity of whole milk received into New South Wales processing factories in recent years. The details in this table, however, cannot be attributed as total New South Wales production since some interstate movement of whole milk occurs, with the state in which it is processed not necessarily the state of origin.

Whole Milk Intake by N.S.W. Factories *(a)*
(Year ended 30 June)
(million litres)
(*Source*: Australian Dairy Corporation)

Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Market milk *(a)*	549	549	549	550	559	579
Milk for other purposes *(b)*	271	325	356	390	381	325
Total milk produced	**820**	**874**	**905**	**940**	**940**	**904**

(a) Fluid milk for human consumption. *(b)* Includes milk used for butter, cheese, and other milk products.

The total number of milk breed cows in New South Wales at 31 March 1976 and 1981 to 1986 are shown in a table in the previous subdivision "Livestock".

Butter and Cheese

The following table shows the total production of butter and cheese in New South Wales in 1975-76 and recent years. The figures include the butter and cheese made in manufacturing establishments from wholemilk and cream transferred to New South Wales from other States.

Butter and Cheese Production, N.S.W.
(Year ended 30 June)
('000 kg)

Product	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Butter *(a)*	10,323	1,388	1,582	1,956	2,832	2,639	1,220
Cheese *(b)*	12,418	10,823	11,362	11,667	14,140	13,768	13,048

(a) Source: Australian Dairy Corporation. *(b) Source*: Prior to 1980, Australian Bureau of Statistics; from 1980 Australian Dairy Corporation. Not strictly comparable.

The highest level of butter production was reached in the seasons of 1933-34 and 1934-35. In recent years, production of butter has been declining and, in the five years from 1981-82 to 1985-86, the quantity of butter produced in New South Wales was approximately 4 per cent of that produced in the five years ending with 1934-35. The virtual demise of the New South Wales butter industry has been brought about by a combination of factors including less milk being available for manufacturing purposes due to the price differential between market milk and milk used for processing.

The production of cheese in New South Wales is not sufficient for local requirements and appreciable quantities are imported from overseas and from interstate to meet demand.

Supervision and Control of Dairy Products in New South Wales

New South Wales Dairy Corporation

The New South Wales Dairy Corporation was established in 1983. The Corporation is charged with the regulation and control of the quality, supply, and distribution of milk and the production, quality, and storage of dairy products and margarine for the purposes of ensuring the wholesomeness and purity of milk, dairy products, and margarine.

Milk which is supplied for human consumption in New South Wales or milk which is supplied for use in the production in New South Wales of dairy products is absolutely vested in, and is the property of, the Corporation. The Corporation allocates quotas to dairy farmers for the supply of milk for human consumption (see following subsection).

All dairy farmers and dairy produce merchants in the State are required to be registered by the Corporation. Premises of dairy farmers, dairy produce merchants, which includes milk stores, dairy produce factories, and dairy produce stores, are inspected by authorised officers of the Corporation.

The Dairy Industry Conference, which was established in 1983, advises the Minister for Agriculture on policy affecting the dairy industry. The Dairy Industry Conference comprises representatives of all sectors of the dairy industry, employees, organisations of large and small shops and consumers. Its functions are to inquire into the general policies of the Corporation and any other aspect of the dairy industry it sees fit and to report to and advise the Minister on any of these matters. The Minister may forward the advice to the Corporation or give such directions to the Corporation he thinks appropriate. The members of the Conference are elected by their sectors. However the representatives of consumers are appointed by the Minister for Consumer Affairs and the representatives of employees in the dairy industry are appointed by the Minister for Agriculture on the nomination of the Labour Council of New South Wales. With the institution of the Conference, the function of the New South Wales Dairy Corporation is to implement policy matters determined by the Conference and endorsed by the Minister as well as discharging its responsibilities under the Dairy Industry Act 1979.

Marketing of Liquid Milk for Human Consumption in New South Wales

State Market

A State Market for milk was introduced into New South Wales in 1980. The State market involves:

- *(a)* a common price to all milk producers irrespective of the factory they supply (From January 1987, the price paid depends on the fat and protein levels in the milk);
- *(b)* sharing of weekly sales of liquid milk and cream for human consumption by the New South Wales Dairy Corporation among all producers prorated according to their *quotas*; and
- *(c)* annual sharing of increased liquid milk and cream sales between all producers who meet the production requirements of the quota system.

Before the introduction of the State market, acceptance of milk from producers by the State milk authority had not been uniform throughout the State, and only some dairy farmers shared in local milk sales.

Further details on milk supplies in New South Wales are given in Chapter 20, "Internal Trade".

Milk Quotas

Liquid milk for human consumption is supplied under a milk quota system in New South Wales. A quota is a weekly quantity of milk that has been determined by the New South Wales Dairy Corporation and allocated against the name of a registered dairy farmer in respect of a particular dairy farm. Although the Corporation determines and issues quotas, it does not have to accept all or any milk from a particular quota holder. One of the effects of the quota system is to limit access to the liquid milk market which offers prices in excess of those offered for milk for manufacturing into processed dairy products. The existence of a quota system also ensures that milk supplies are maintained throughout the year and guards against over-production in the industry.

At the present time, no new registrations or quotas are being issued, but variations to quota allocations can be achieved in the following ways:

- *(a)* purchase or sale of an operating dairy farm having a quota attached;
- *(b)* additions to quotas resulting from increased liquid milk sales in New South Wales;
- *(c)* sharing of a quota available from the surrender pool.
- *(d)* loss of part of a quota because of failure to meet production requirement.
- *(e)* Surrender of all or part of a quota to the Corporation.

Milk Prices

Since July 1984, the price paid to dairy farmers and the wholesale and retail prices of milk in New South Wales are adjusted using an automatic price fixing mechanism. The mechanism is based on formula pricing, involving a specific set of rules for the adjustment of milk prices. The formula is based on published statistical series and the prices are recalculated and, if necessary, reset at regular intervals. Since January 1987 the price paid to dairy farmers also reflects adjustments determined by the New South Wales Dairy Corporation for the composition of milk based on fat and protein levels.

The operational pricing formula mechanism for New South Wales is restricted to the pricing of white milk, principally pasteurised and homogenised milk. It does not apply to milk used in the production of flavoured milk, milk used for producing modified milks, long life milk and milk for separation into sweet (table) cream. Price reviews using the formula are conducted by the Corporation in the months of March, June, September and December each year. When there is a change in any one or more of the indices which would justify an adjustment in the margin of any industry sector or retail price of milk, an appropriate notification is made and any objection to the proposed movement in the retail price may be made to the Minister for Consumer Affairs within a period of seven days of a public announcement. If the Minister is notified that there are substantial objections he can direct the New South Wales Prices Commission to investigate the proposal. Without any objection, the retail price is adjusted automatically.

In addition to the appeal mechanism to the Minister for Consumer Affairs to safeguard the consumer interest, provision was made in the legislation for a Prices Review Committee which is called upon to review the price mechanism in the light of changes in industry sector methods as disclosed by cost surveys.

Further details on the prices for milk distributed in the Sydney metropolitan area are contained in Chapter 21 "Prices".

Dairy Marketing, Promotion and Research

Australian Dairy Corporation

The Australian Dairy Corporation is constituted under the Dairy Produce Act 1986, to enhance the profitable production and marketing of Australian dairy products. The functions of the Corporation are to: promote the consumption of dairy products both in Australia and overseas; assist in the marketing of dairy products both for export overseas and trade within Australia; control exports of Australian dairy products; control the marketing of dairy products that have been exported; provide assistance by way of loans to manufacturers of dairy products.

In addition, the Corporation collects levies, which are used to fund its own operations, including market support and promotion arrangements, and to provide an industry contribution for research purposes. Under current legislation, the Corporation is also able to engage in futures trading, so as to raise additional funds. The Corporation is accountable to the Australian Dairy Industry Conference, which is composed of representatives of dairy farmer organisations. The Australian Dairy Industry Conference provides advice to the Corporation on matters relating to future strategies of the dairy industry and provides advice to the Minister of Primary Industry.

Prices of Dairy Products

Particulars of the average retail prices of cheese and butter in Sydney are given in chapter 21 "Prices".

For information on Dairy Product levies see the 1986 issue of the New South Wales Year Book.

Exports of Dairy Products

The following table shows the quantity and value of principal dairy exports in recent years, where New South Wales was the state of origin for the products.

Overseas Exports *(a)* of Selected Dairy Products from N.S.W.
(Year ended 30 June)

Dairy products	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Butter (incl. ghee) —						
Quantity ('000 kg)	497	177	276	930	647	856
Value ($A'000 f.o.b.)	1,093	497	790	1,953	1,359	1,741
Cheese —						
Quantity ('000 kg)	639	626	398	292	459	428
Value ($A'000 f.o.b.)	1,301	1,413	1,062	843	1,068	1,175
Preserved milk *(b)* —						
Quantity ('000 kg)	3,843	1,961	2,247	2,545	2,823	1,824
Value ($A'000 f.o.b.)	6,098	2,941	3,186	3,678	2,877	2,482

(a) Includes ships' stores. *(b)* Includes powdered, concentrated, and condensed milk, etc.

Dairy Industry Research

The Dairy Research Council, set up under the Research Industries Act 1985, administers a program of scientific, technical, and economic research into the dairy industry. The functions of the Committee are to make recommendations to the Minister for Primary Industry concerning the allocation of funds from the Dairying Research Trust Fund for the industry's dairy research programme.

WOOL PRODUCTION

Quantity and Value of Wool Produced in New South Wales

New South Wales produces approximately 34 per cent of the Australian wool clip. The predominant merino breed, raised for its fine quality wool, accounts for over 70 per cent of the sheep and lambs shorn in New South Wales.

The main shearing period extends over the months July to November (when approximately 66 per cent of sheep are shorn). Apart from a minor peak in activity which occurs in February-March (when approximately 12 per cent are shorn) the balance of sheep shearing is spread fairly evenly over the remaining months of the year.

The weight of the wool clip is stated on a greasy basis because precise data of the clean scoured yield are not available. The greasy wool produced in New South Wales in past years is estimated to have yielded about 66 per cent clean scoured weight.

Particulars of the number of sheep shorn, the average clip per sheep, and the quantity, value, and price of wool produced in New South Wales in 1976 and in recent seasons, are shown in the following table.

Sheep Shorn, Quantity, Value, and Price of Wool Produced (Season ended 30 June)

Item	*Unit*	*1976*	*1982*	*1983*	*1984*	*1985*	*1986*
Sheep and lambs shorn	'000	53,000	50,300	50,797	52,400	58,098	59,800
Average clip (greasy) *(a)*	kg	4.10	4.3	4.3	4.4	4.4	4.3
Quantity of greasy wool produced —							
Shorn and crutched	'000 kg	217,201	216,322	218,071	230,612	255,636	258,804
Total production	'000 kg	240,272	234,650	238,804	248,874	275,134	280,675
Value of wool —							
Gross *(b)*	$'000	321,817	575,308	585,195	687,439	838,995	938,283
Local *(c)*	$'000	300,623	542,178	550,060	652,191	791,073	887,751
Average auction price per kg *(d)*	cents	146.6	262.0	267.0	303.2	337.2	366.07

(a) Average wool shorn from all sheep, including lambs. Includes crutchings, but does not include fellmongered wool or wool from dead sheep and lambs. *(b)* Valued at the market place for wool sold at auction and for private sales outside the auction system. *(c)* Gross value less the estimated costs of marketing. *(d)* Average price realised for greasy wool sold at auction at Sydney, Newcastle, and Goulburn.

The greater proportion of wool produced in New South Wales is purchased for export and major variations in the value of wool produced have generally been caused by fluctuations in the internationally influenced market price rather than by changes in the level of local production. However, recently, supply factors (e.g. changes in the composition of the sheep flock) have had a greater bearing on market prices than in the past. Particulars of wool exports from New South Wales in recent years are given later in this subdivision. In recent years instability in international currency markets has added to the price fluctuations which normally result from variations in world supply and demand for wool. Price fluctuations have been tempered to some extent by the introduction of the minimum floor price scheme operated by the Australian Wool Corporation and supported by the Commonwealth Government. Prices, and thus the value of wool produced, are affected over the longer term by changes in the proportion of Merinos, other recognised breeds, Merino comebacks, and crossbreeds in the sheep flocks, and by variations in the quality of wool within these broad classifications. Wool prices are also affected by demand factors as well as by exchange rate variations. These can have an even greater effect on wool prices, than the supply factors.

Quality of Wool

Details of all greasy wool sold at auction are analysed in respect of quality, combing or carding classifications, and degrees of vegetable fault. In any season the quality, length, soundness, colour, and style of wool as well as the proportion of natural grease and vegetable and other foreign matter in the clip have an important impact upon the prices obtained by producers.

The following table shows the proportional distribution, by mean micron classifications, of the greasy wool sold at auctions at Sydney, Newcastle, and Goulburn in 1975-76 and recent seasons. The figures under the heading "Mean Micron Group" indicate the degree of fineness of the wool fibre, in descending order.

Quality Analysis of Greasy Wool Sold at Auctions in N.S.W.*(a)*
(*Source*: Australian Wool Corporation)
(Proportion per cent of total number of bales)

	Season ended 30 June						
Mean micron group	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
19 and finer	5.6	15.5	11.2	10.3	11.6	8.4	14.7
20	8.8	15.3	12.5	13.9	14.3	12.3	17.4
21	14.2	18.8	16.2	17.3	18.3	16.8	22.2
22	24.2	17.2	18.1	18.7	17.0	20.4	18.6
23 and 24	27.2	13.1	18.9	18.6	17.9	22.4	11.7
25 and 26	5.7	6.0	6.9	5.9	6.5	5.5	3.5
27 and 28	5.2	6.2	7.0	6.4	6.0	4.4	4.5
29 and 30	4.2	3.5	4.6	4.9	3.8	4.1	3.2
31 and coarser	3.8	1.7	2.0	2.9	2.3	3.7	1.7
Oddments	1.1	2.7	2.6	1.1	2.3	2.0	2.5
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

(a) Excludes sales at Albury (regarded by the A.W.C. as a Victorian selling centre).

An analysis of combing or carding groups is given for recent seasons in the following table. Since 1980 the Australian Wool Corporation has adopted a single classification for combing wool to reflect technical developments in processing which include the widespread use of multi-linear combs.

Combing and Carding Group Analysis of Greasy Wool Sold at Auctions in New South Wales *(a)*
(*Source*: Australian Wool Corporation)
(Proportion per cent of total number of bales)

	Season ended 30 June						
Type of wool	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Combing wool *(b)*	86.1	88.8	88.1	88.7	87.4	87.9	87.2
Carding wool	13.9	11.2	11.9	11.3	12.6	12.1	12.8
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

(a) Excludes sales at Albury (regarded by the A.W.C. as a Victorian selling centre). *(b)* Includes combing oddments.

The incidence of vegetable fault in greasy wool sold at auctions in New South Wales centres in 1975-76 and the six most recent seasons is shown in the next table.

Vegetable Fault Analysis of Greasy Wool Sold at Auctions in New South Wales *(a)*
(*Source*: Australian Wool Corporation)
(Proportion per cent of total number of bales)

Vegetable fault	*1975-76*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Free or near free	39.1	29.9	31.0	16.9	33.8	r18.0	31.2
Light burr and/or seed	31.4	38.2	35.8	43.6	33.9	r40.2	36.8
Medium burr and/or seed (combing)	13.3	16.5	18.6	23.9	18.0	25.7	17.3
Heavy burr and/or seed (combing)	5.0	5.8	5.1	5.3	4.5	5.6	4.7
Carbonising	11.2	9.6	9.5	10.2	9.8	10.5	10.0
Total (b)	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

(a) Excludes sales at Albury (regarded by the A.W.C. as a Victorian selling centre). *(b)* Includes combing and carding oddments.

The proportion of wool falling within the classifications varies considerably under the influence of seasonal conditions. During drought periods, the proportion of free or nearly free wools normally increases compared with good seasons when more seed is present in the pastures.

Average Weight of Fleece

The average weight of the fleece fluctuates considerably from year to year with variations in seasonal conditions. It is also affected by changes in the sex structure, age profile and breed composition of the flock. Modern management practices, together with breeding programs which aim, for example, at improving fleece characteristics and climatic suitability, are also reflected in average fleece weights. The average weight of fleece shorn from sheep and from lambs in Statistical Divisions of New South Wales in recent seasons is shown in the following table. Crutchings, which generally represent 2 or 3 per cent of total wool production, are not included.

Average Clip (Excluding Crutchings), Per Sheep and Lamb
(Season ended 30 June)
(Kilograms)

	1984		*1985*		*1986*	
Statistical divisions	*Sheep*	*Lambs*	*Sheep*	*Lambs*	*Sheep*	*Lambs*
Sydney	4.21	1.20	4.20	1.77	4.01	1.22
Hunter	4.78	1.65	4.79	1.61	4.76	1.61
Illawarra	3.91	1.34	3.98	1.36	3.95	1.25
Richmond-Tweed	4.24	1.74	3.48	1.36	3.96	2.01
Mid-North Coast	4.08	1.62	4.16	1.22	3.98	1.71
Northern	4.48	1.69	4.36	1.69	4.29	1.72
North Western	5.04	1.86	4.99	1.86	4.75	1.84
Central West	4.67	1.65	4.88	1.65	4.78	1.63
South Eastern	4.63	1.55	5.02	1.56	4.81	1.53
Murrumbidgee	4.82	1.65	5.05	1.65	4.85	1.60
Murray	5.01	1.71	5.17	1.68	4.94	1.72
Far West	5.52	1.80	5.56	2.03	5.18	2.24
Total, N.S.W.	4.80	1.71	4.92	1.71	4.75	1.71

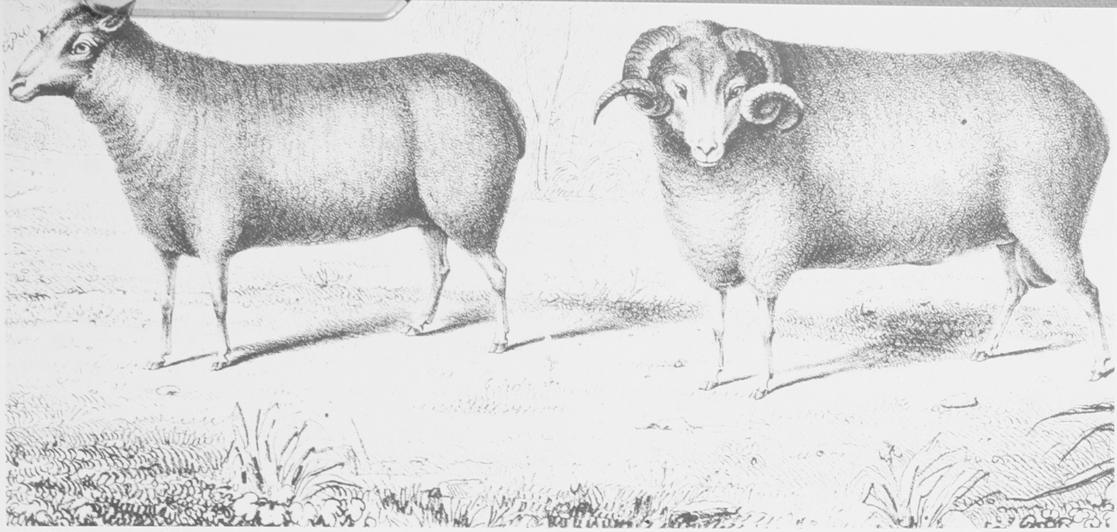
Wool Marketing

Australian Wool Corporation

The Australian Wool Corporation was established with the proclamation of the *Wool Industry Act 1972*.

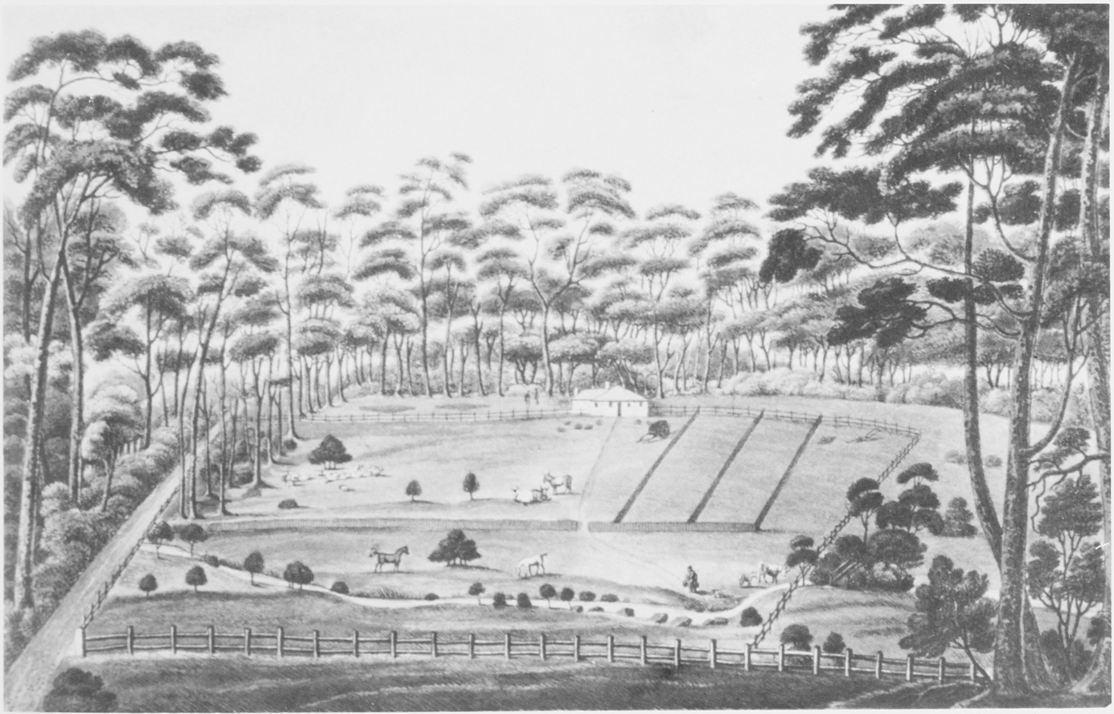
The Corporation is responsible for: the administration of a Reserve Price Scheme for wool; providing services to support the wool marketing system; promotion of wool products in Australia and worldwide in association with the International Wool Secretariat; co-ordination of wool research; encourage innovation in wool marketing, distribution and in processes and products and the administration of wool stores.

In 1974 the Commonwealth Government, in response to a severe decline in wool prices, agreed to implement the Reserve Price Scheme for wool sold through the auction system. The purpose of the Reserve Price Scheme is to provide greater price stability and predictability in Australian currency terms for Australian wool while also aiming to achieve the maximum sustainable price for growers in the long term. The key element in the Reserve Price Scheme is the minimum reserve price. This price, which is set annually by the Australian Wool Corporation, is based on the longer term supply and demand trends for wool on international markets. Separate minimum reserve prices are determined for each grade of wool, before auction. In the event that bidding at auction does not reach the minimum reserve price, the Corporation buys the wool at the minimum reserve price and pays the wool-selling broker who received wool into store. The wool-selling broker deducts his normal charges from the Corporation's payment and credits the balance to the grower's account. The Corporation disposes of wool purchased at auction either through the auction system or privately to the trade. The flexible Reserve Price Scheme is a supplementary component of the Reserve Price Scheme and is normally applied when the market is above the floor price. The Commonwealth Government is authorised in terms of the *Wool Marketing (Loan) Act 1974* to make loans of up to $350m to the Corporation to enable it to finance purchases of wool at auction and to make advances to woolgrowers whose wool is temporarily withheld from the market by the Corporation. The maintenance of minimum reserve prices is presently financed by the Market Support Fund, provided for by wool growers, through a 4 per cent levy on gross proceeds from shorn wool (see "Wool Levy" later in this subdivision). Profits and losses in the fund are transferred to following periods.



N.S.W. Government Printer

Above: German ram and ewe exhibited at Parramatta in 1828. Of all the Australian colonies, New South Wales was to emerge as the premier sheep-breeding region. Although John Macarthur began his work with pure-bred merinos almost from the inception of the colony, flocks other than those at Camden were also important. By 1823, several breeders had imported high-class rams from Germany and, in some cases, German ewes were also introduced. Between 1823 and 1833, Alexander Riley developed his flocks at Raby from high-class imported German sheep; two of his Electoral Saxon breed are illustrated here. Another such example was the Collaroy flock, which was founded by sheep breeders Jones and Davidson from imports of Saxon rams and ewes, to which they added some ewes from the Camden flock.



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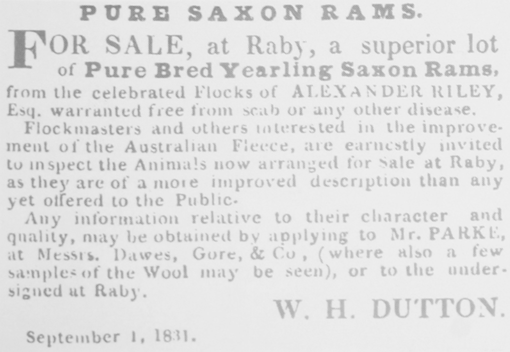

PURE SAXON RAMS.

FOR SALE, at Raby, a superior lot of **Pure Bred Yearling Saxon Rams,** from the celebrated Flocks of ALEXANDER RILEY, Esq. warranted free from scab or any other disease.

Flockmasters and others interested in the improvement of the Australian Fleece, are earnestly invited to inspect the Animals now arranged for Sale at Raby, as they are of a more improved description than any yet offered to the Public.

Any information relative to their character and quality, may be obtained by applying to Mr. PARKE, at Messrs. Dawes, Gore, & Co., (where also a few samples of the Wool may be seen), or to the undersigned at Raby.

W. H. DUTTON.

September 1, 1831.

"Sydney Herald", 1831

Above: Riley's farm at Raby. This depiction of the property by artist Joseph Lycett has an English air about its neat fields and squat farmhouse! Raby's flocks were well-known and were a source of supply of pure Saxon rams for many other parts of the colony, as the advertisement, (left) in the "Sydney Herald" in 1831, indicates. The importation of stud sheep from foreign countries, particularly France, Germany and America, was continued for many years after the fine quality of Australian wool had been established in world markets. From 1850 to 1870, however, only a few German sheep, and even less French ones, were imported.

Dixson Galleries, State Library of New South Wales

Unlike the white-fleeced sheep of England, Australian sheep had brownish wool clotted with dust and sand. There were several reasons why graziers tried to remedy this situation. Firstly, dirty, sandy wool blunted the blade and thus slowed down the shearing process; secondly, such blunt shears could injure the sheep if too much pressure caused cutting; thirdly, the extra weight of sand and dirt added to the cost of transport; and fourthly, a higher price was paid for clean wool. Solutions to the problem varied. Rivers were often used for sheep washing and some stations had their own wool scours. The pencil, pen and ink sketch by J. Phillips in 1848 (left) shows sheep at "Warbreccan" being washed by Aboriginals who are standing in the Edwards River with the overseer and his dog in attendance. At "Warbreccan", it was claimed by the artist that "1,000 sheep may be washed daily by twelve or thirteen blacks, one white overseer and shepherd". In the illustration (below), from the "Illustrated Sydney News", 15 October 1864, sheep are being soaped (upper centre) and the long poles are used to duck and rinse the sheep (lower centre); each sheep then moves out to the draining pens, and finally to the drying-off areas.

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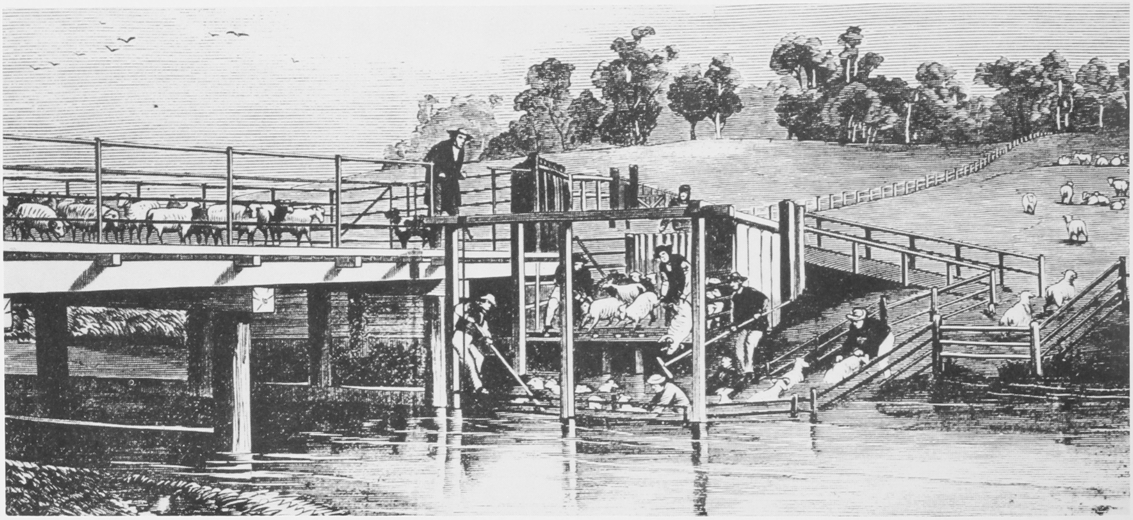
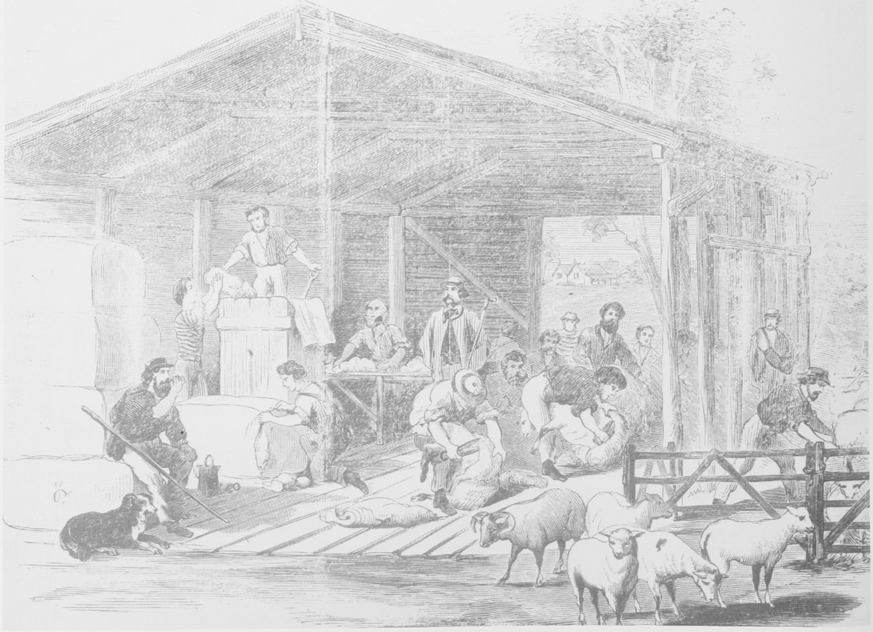


Wool-shearing by hand in the mid 19th century — "Illustrated Sydney News", 15 October 1864. In the early board (that part of the woolshed where the sheep are shorn), the shed was usually open, and frequently rigged by the shearers themselves from posts covered with wire netting, topped with spinifex. On an average about 50 or 55 sheep could be shorn per day. In the centre of the scene stands the boss-of-the-board, a figure who remained familiar to the shearer even when his blade shears had yielded to machine.



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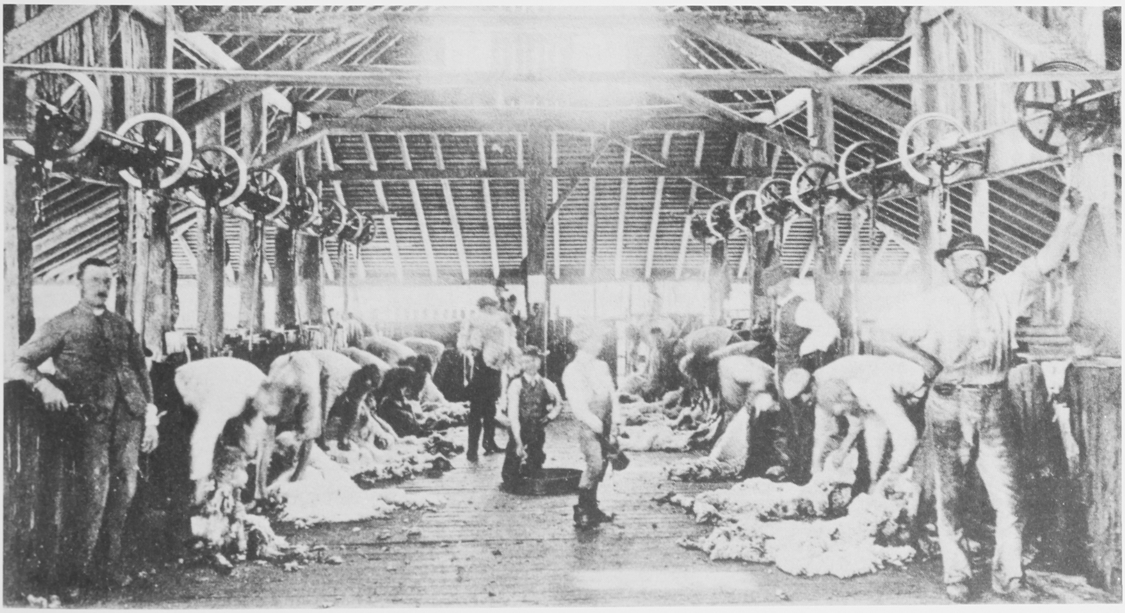
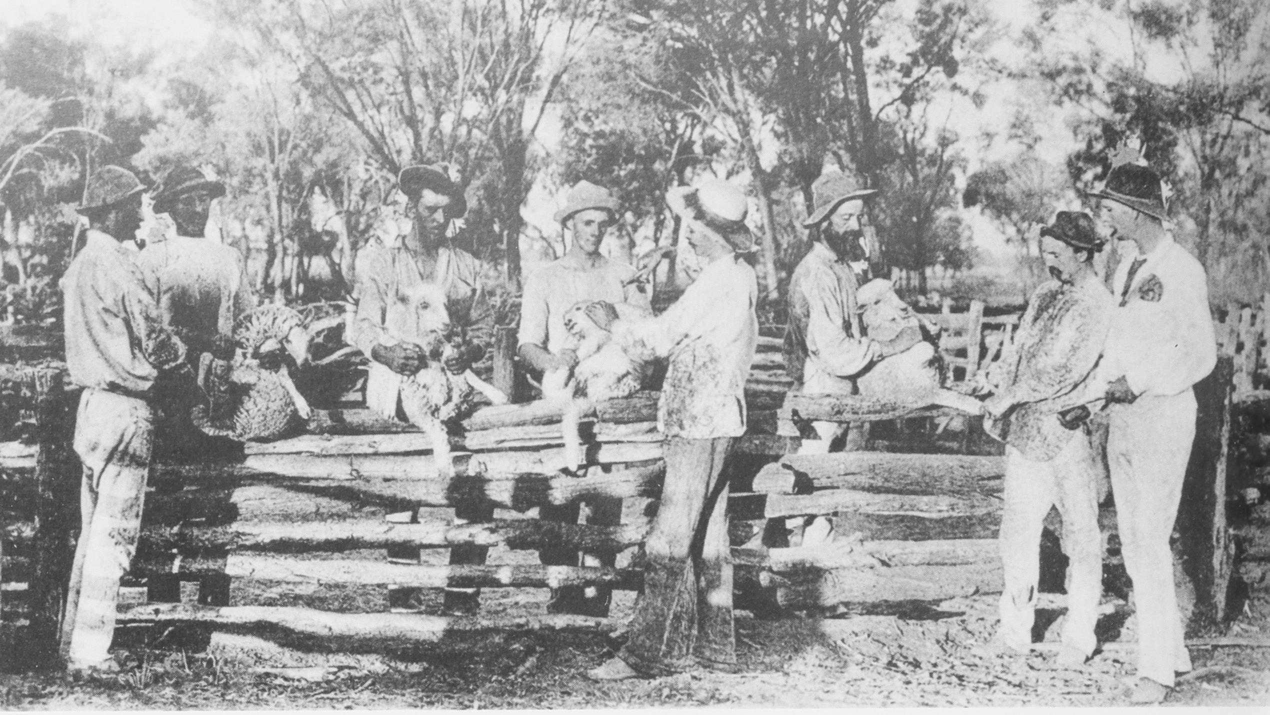
Promotion Australia

Above left: Portrait of John Macarthur, reproduced from "Some Early Records of the Macarthurs of Camden", (edited by Sibella Macarthur Onslow, 1914). Macarthur's foresight and vigorous effort must be credited with laying the foundations of the Australian wool industry. As early as 1794, he produced a fine fleece of mingled hair and wool from crossbreeding Indian and Irish sheep and, in 1796, he purchased a small number of high-class Spanish merinos from South Africa. This foundation to the wool industry was built upon by the work of such leading breeders as the Peppin brothers and Sir Samuel McCaughey who improved John Macarthur's original average of two and a half pounds per fleece to the remarkable figure of seven pounds per fleece in the 1890's.
Above right: An Australian shearer at work with electric clippers. A basic problem involved in the shearer's switch from blade-shearing to machine centred around the positioning of man and beast during shearing. Under blades, not only could the shearer choose any spot in the shed for his work but he could also shear the sheep from any position comfortable to him (and the animal) on the board. Machine shearing, however, imposed more rigid and uniform requirements.

Mitchell Library, State Library of New South Wales



Shearing by machinery at Dalgety Station, about 1901. Inventors were attempting to find a mechanical method of driving shears as early as 1860, but it was not until 1887 that the Howard-Wolseley machine began to revolutionise shearing. Despite shearer opposition and strike action, the first full machine shearing in the world was done at Dunlop Station on the Darling River, in 1888. Gradually, attitudes began to change and tallies rose to an average of 120 sheep daily per man. By the end of the nineteenth century, shearing machinery had been installed fairly widely, especially on the bigger properties.



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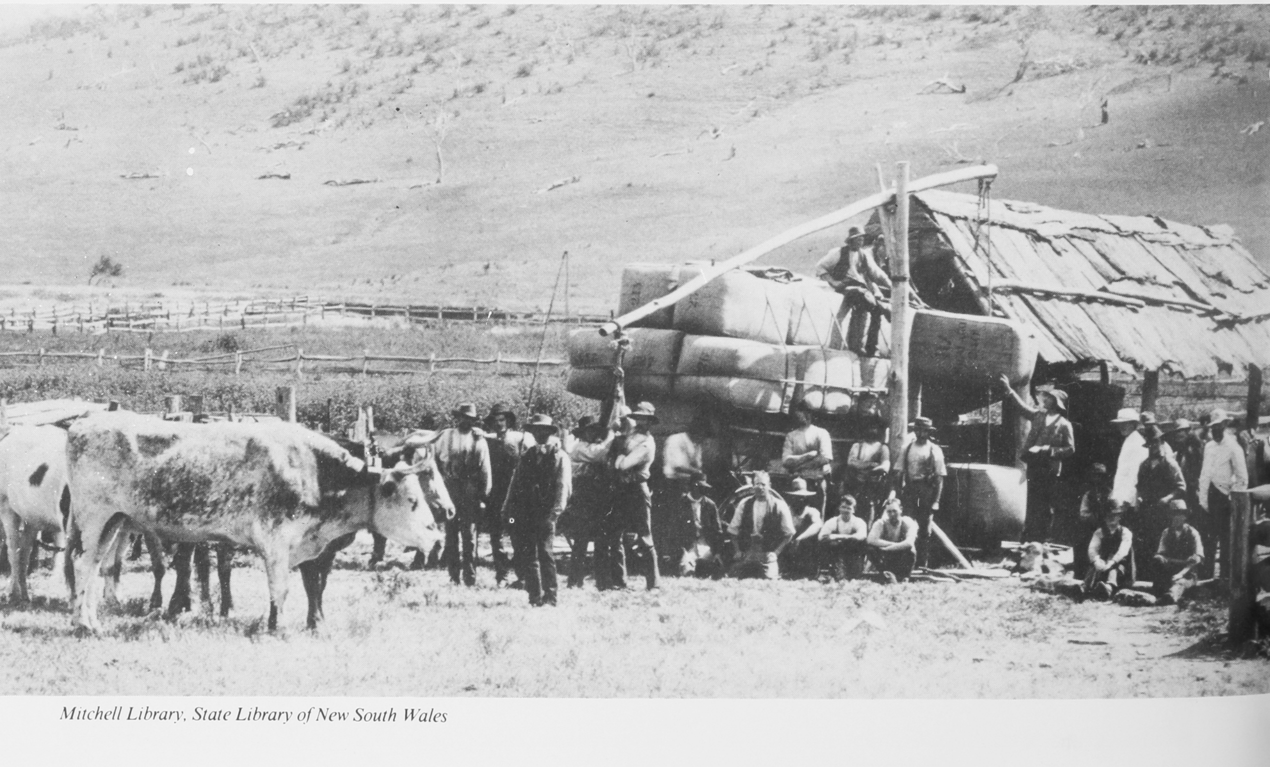
Lamb marking, late 19th century. This was one of a series of postcards on "the history of an Australian merino", produced by the well-known Sydney photographic firm, Kerry & Co.. The man in the centre of the picture (fourth from right) is attaching an ear tag to the lamb for identification purposes. An ear tag or ear mark was preferred (and still is) for sheep, as a brand could damage the fleece.



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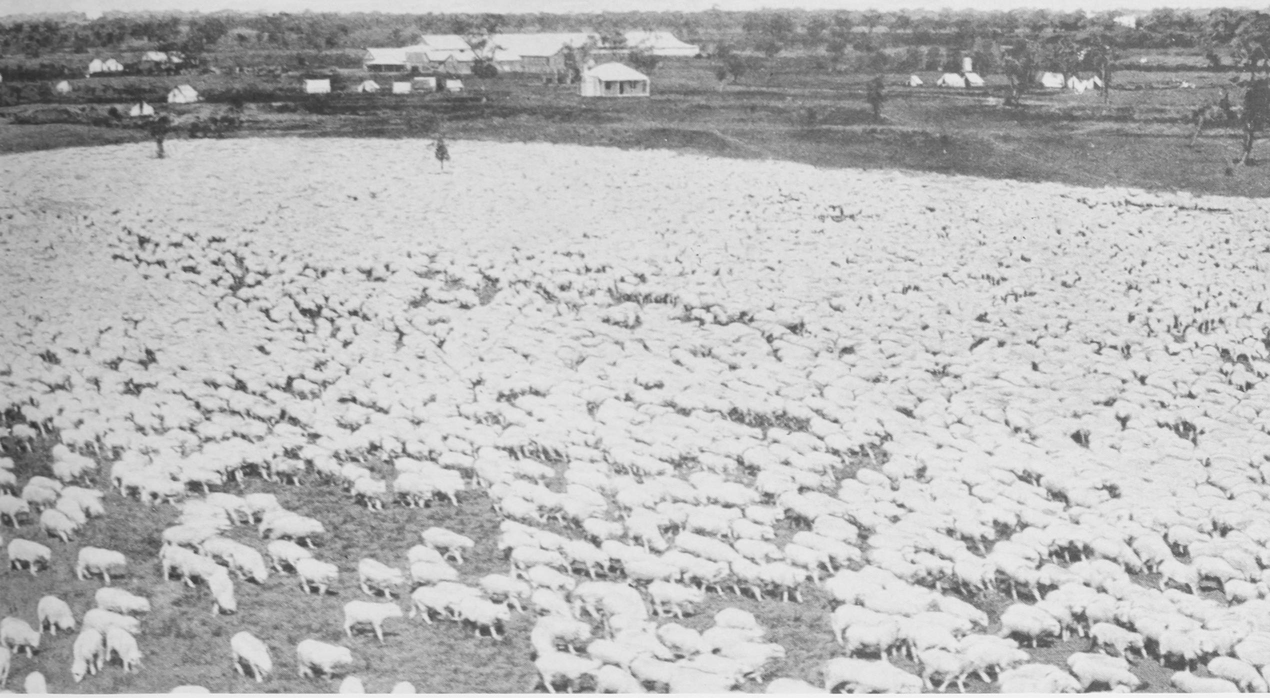
Loading wool, 1890's, also one of the photographic series by Kerry & Co. The wool bales here are being loaded by manual hoist on to a cart, to which a bullock team has been yoked. In Sydney's stores and warehouses, mechanical hoists for wool naturally came earlier than in the outback. Around the mid-1850's, steam winches began to replace manual operation, and gas engines and hydraulic lifts followed. Near the rivers, too, loading facilities were modernised to cope with the considerable river trade. Such developments, however, were slow to reach inland. Similarly, away from the river system, wool could only be transported by horse or bullocky's wagon, a situation that was not to change until the expansion of the railways.



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Above: A "Mob" of 23,000 sheep at "Wingadee Station" (New South Wales), about 1898. Station management commenced in New South Wales about the end of the 1860's, when stock-owners found that allowing sheep to run freely in paddocks ("turning out"), instead of shepherding them, was more profitable than keeping cattle. The sheep runs were fenced and subdivided and more attention was paid to supplying adequate water through wells, dams and tanks. Consequently, from 1861 to 1891, there was a steady increase in the number of New South Wales sheep and the years from 1890 to 1910 saw the peak of the great sheep stations, of which "Wingadee" was a famous example. By 1894, the number of sheep in New South Wales was estimated to be nearly 57 million.

"Burrawang Station", Coonamble district about the end of the century. In the halcyon days of the large sheep properties, "Big Burrawang", as the shearers called this station, was among the biggest and best-known. Its drafting yards were planked and its woolsheds were huge, as the illustration shows. "Burrawang" was one of the first stations to change to machine-shearing and the latter required large sheds with roofs high enough to accommodate the new machines. By the end of the 19th century, "Burrawang" and "Mahonga" were among the largest in terms of the number of shearing stands available, each possessing 88.

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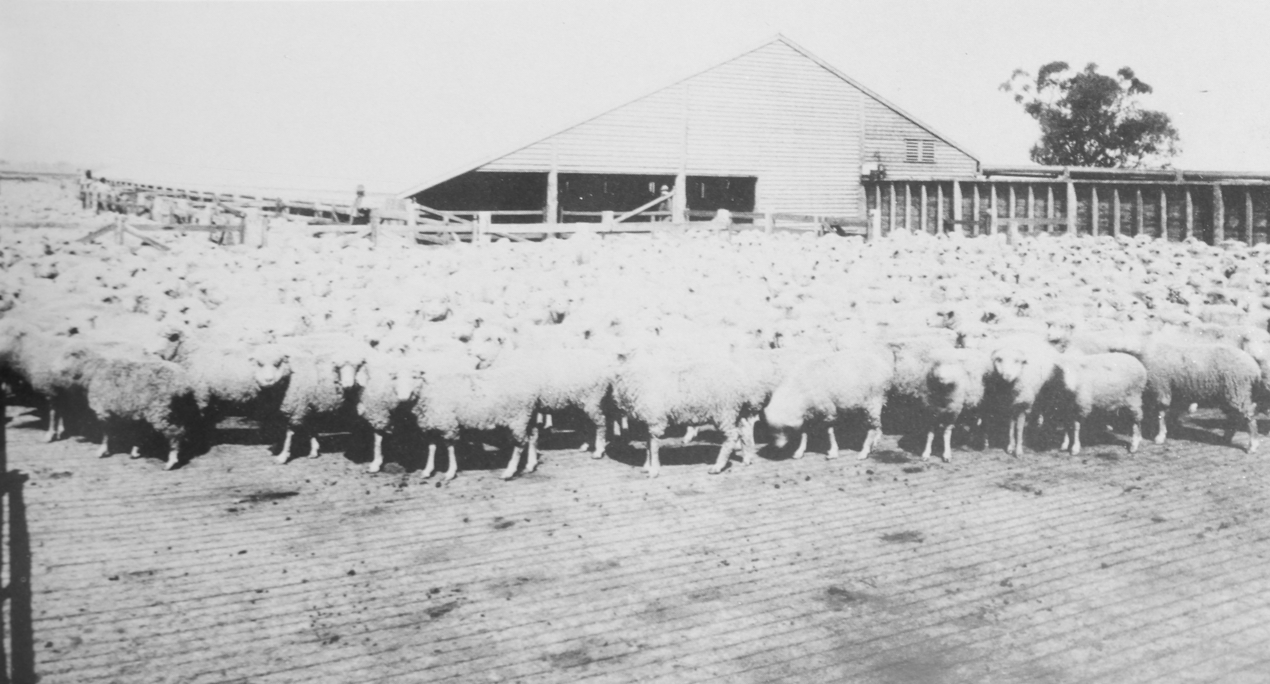

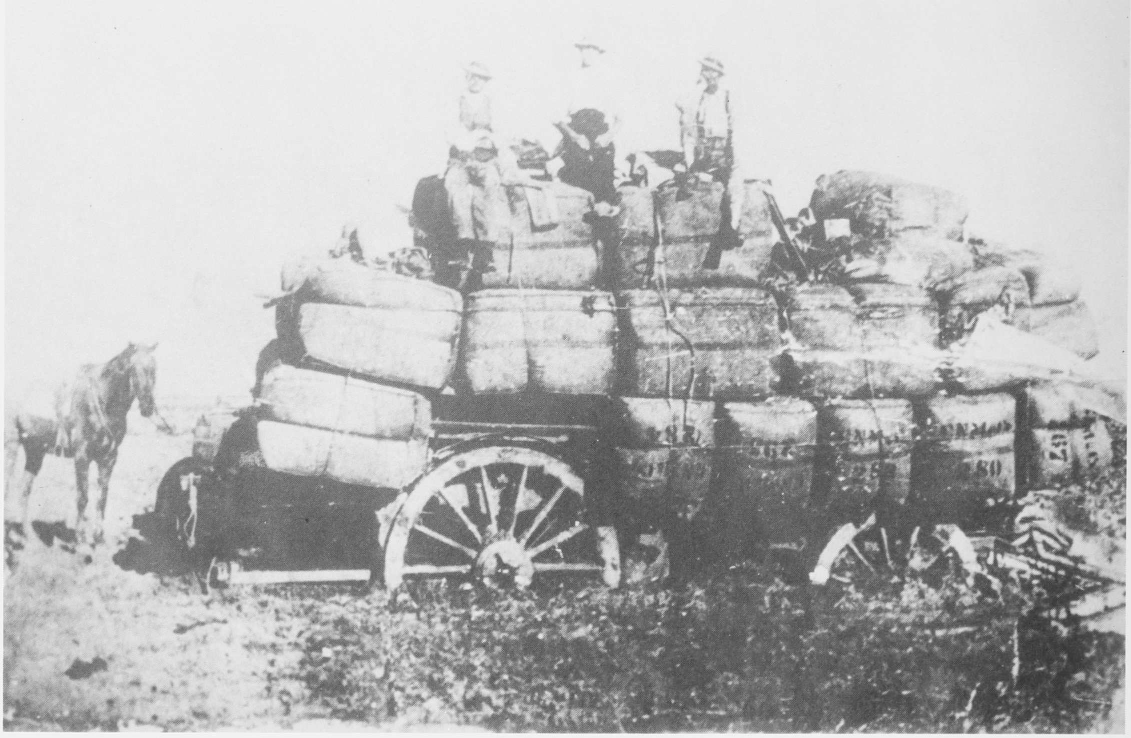

Mitchell Library, State Library of New South Wales, courtesy of the Bourke and District Historical Society

Wool dray bogged in Yambacoon Swamp (above) and wool drays travelling from the interior, "Illustrated Sydney News", 16 December 1865 (below). By about 1870, the Murray-Darling and Murrumbidgee river system supported a flourishing transport network between inland and coast, and its most important burden was wool. The railways were gradually extending westwards but as yet were no threat to the river trade. In those areas remote from the rivers, however, some other means of transport to river or rail had to be found. Dependent upon the circumstances, horses, bullocks or camels were employed and, in many cases, their use continued well into this century. A horse team of twelve animals was not uncommon and such teams were a familiar sight as they carted wool from the outback. Bullock teams were an alternative (below), the legendary figure of the bullocky leading as many as fourteen to twenty bullocks across vast distances. Such teams confronted many obstacles — swollen rivers, drought, harmful pasture — and bogged vehicles were a particularly frequent problem. In 1862, camels were brought to Australia by Sir Thomas Elder and long camel caravans were used extensively for fifty years in dry conditions; camels could not be used in wet seasons, however, as the structure of their feet rendered them liable to slip. They were of most value in the dry, remote interior.

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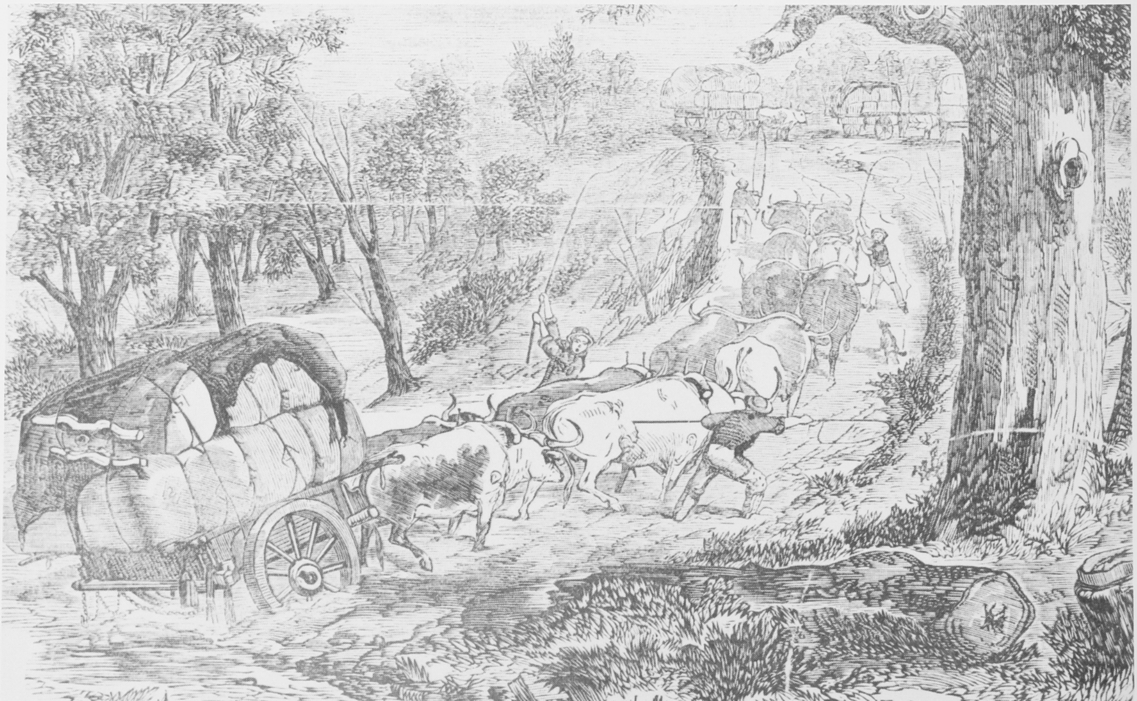

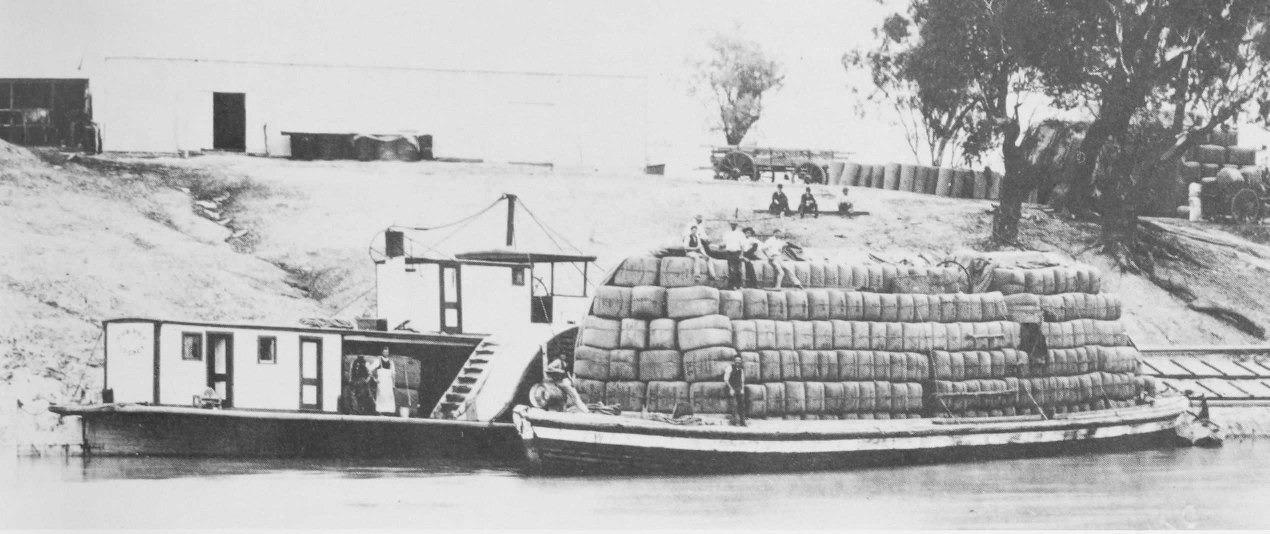

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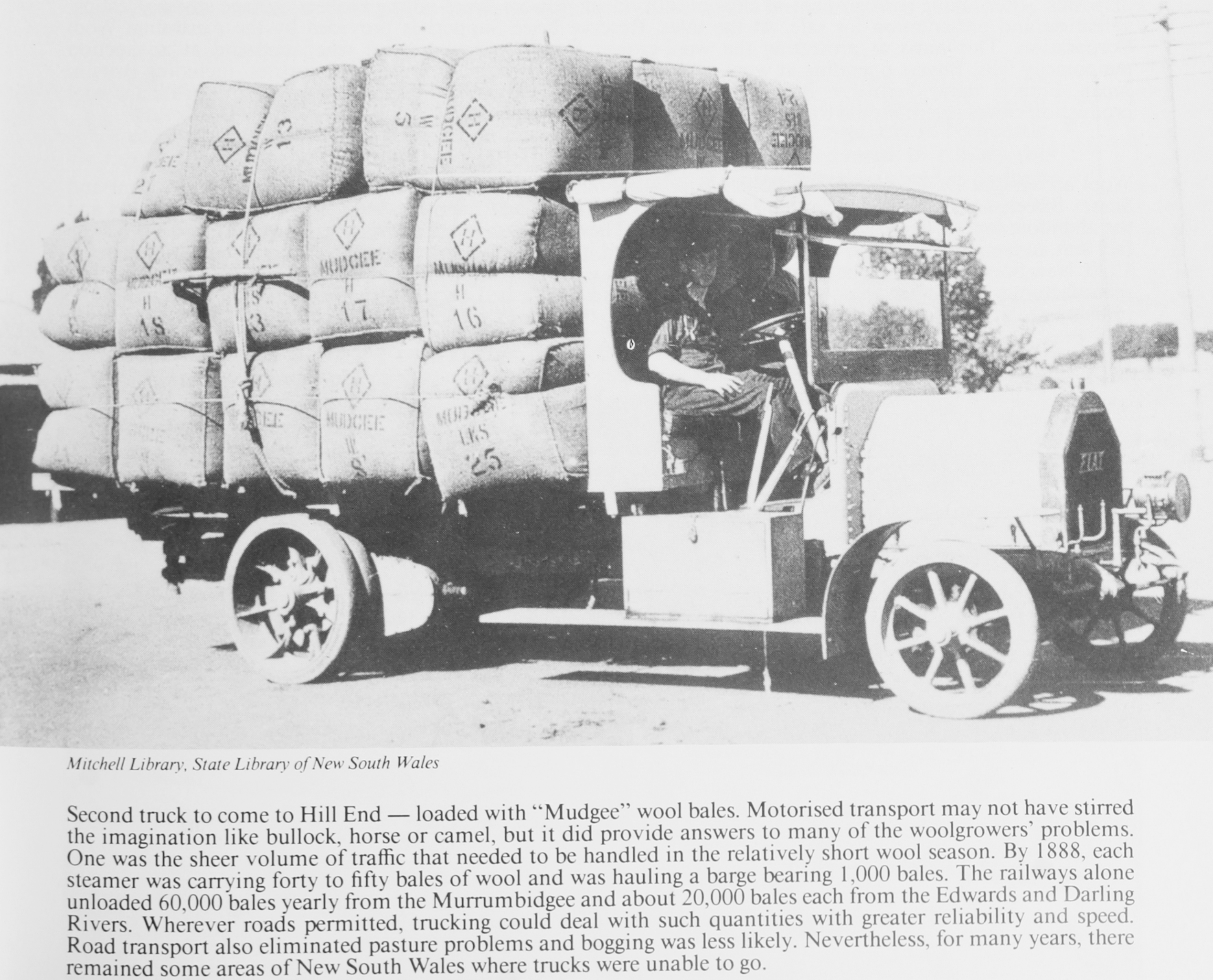
Paddle steamer "Rob Roy", with barge. The first wool bale was shipped on the Murray River system from Poon Boon (later known as Stony Crossing) in 1853. Areas not previously amenable to sheep-raising were opened up — for example, west of the Darling — and sheep stations sprang up along the river's course. Riverboat transport was fast and cheap, even though Australian inland waterways tend to be unreliable. The river vessels were improved to cope with the rich wool trade and, in turn, led to increased prosperity for the sheep stations. The "Rob Roy", with its barge "Swan", belonged to the large river transport firm of William and James McCulloch. Companies such as this organised all aspects of transport — to and from the shearing sheds, across country by team where necessary, from river port to coast, and even per the wool clippers which would ship the wool to English mills.



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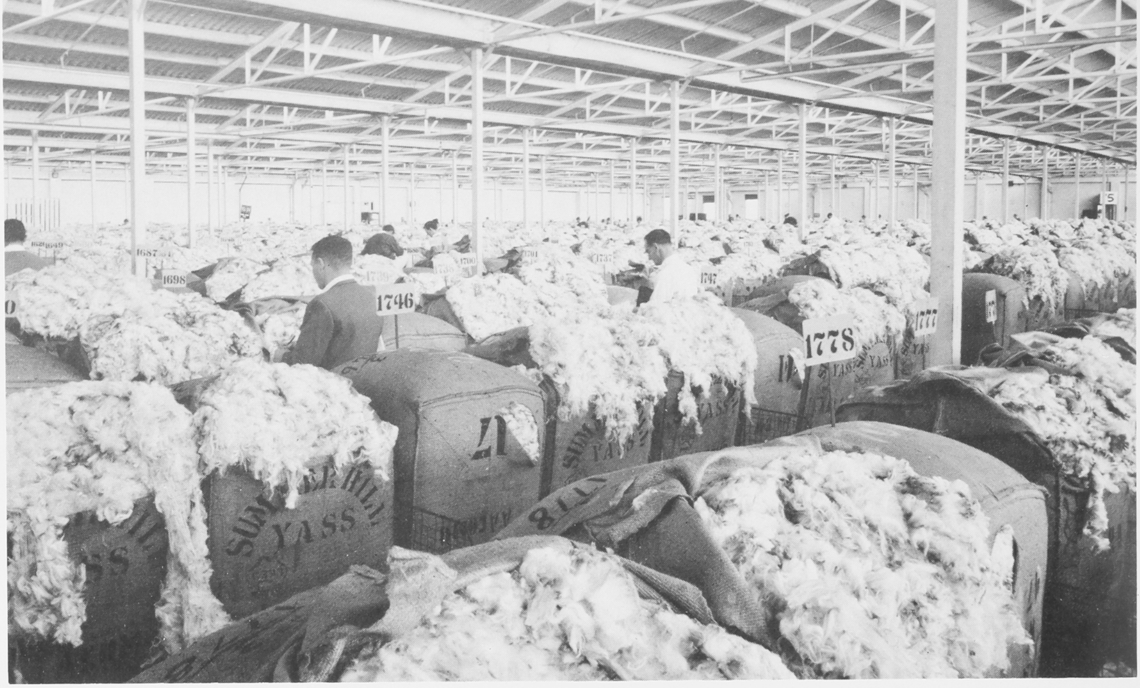
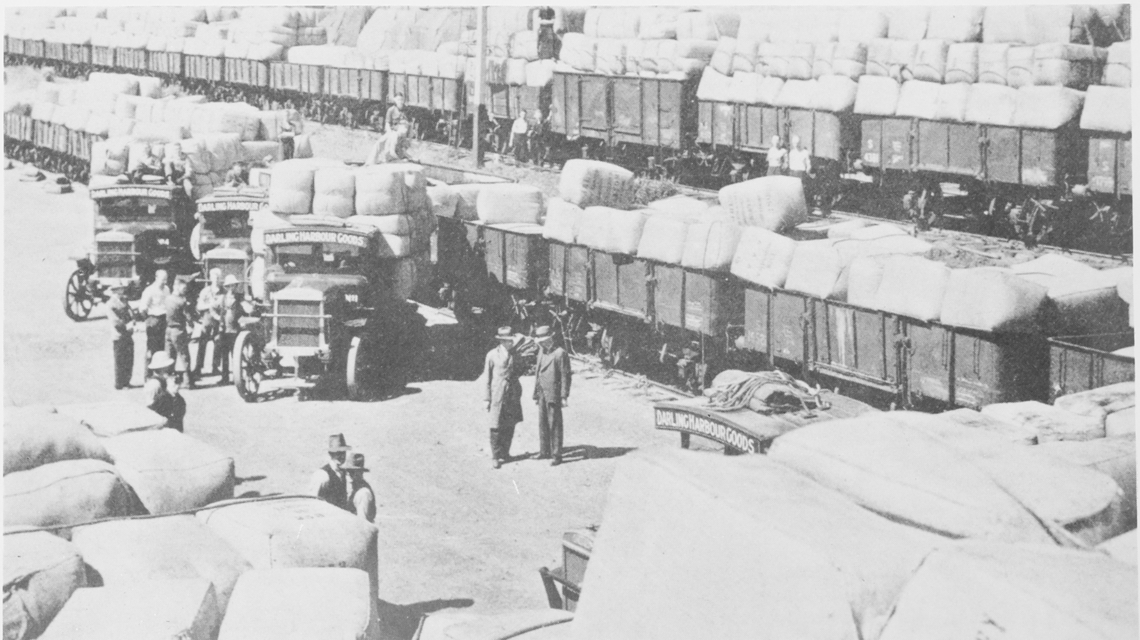
Second truck to come to Hill End — loaded with "Mudgee" wool bales. Motorised transport may not have stirred the imagination like bullock, horse or camel, but it did provide answers to many of the woolgrowers' problems. One was the sheer volume of traffic that needed to be handled in the relatively short wool season. By 1888, each steamer was carrying forty to fifty bales of wool and was hauling a barge bearing 1,000 bales. The railways alone unloaded 60,000 bales yearly from the Murrumbidgee and about 20,000 bales each from the Edwards and Darling Rivers. Wherever roads permitted, trucking could deal with such quantities with greater reliability and speed. Road transport also eliminated pasture problems and bogging was less likely. Nevertheless, for many years, there remained some areas of New South Wales where trucks were unable to go.



Promotion Australia

Buyers examining wool in the Goulburn auction showroom of Goldsbrough Mort & Co. Ltd. Auction is still the principal way in which wool-growers sell their wool, and it usually accounts for about 80 per cent of all wool disposals. After taking consignment of clips of individual growers, wool-selling brokers arrange storage, testing, valuation and presentation for sale. At the sales, Reserve Price Support is provided by the Australian Wool Corporation. This aims at protecting the wool-grower from too low a price when demand at an auction temporarily falls. Buyers operating at wool auctions in Australia come from many countries, including Britain, Japan, France, Italy, Germany, Belgium and America. Approximately 95 per cent of total Australian wool production enters international trade.

Wool arriving at Darling Harbour, 1920. Many warehouses and woolstores were constructed along Kent and Sussex Streets and in Pyrmont around Darling Harbour following the connection of the railway to the area and the abandonment of Circular Quay as a wool wharf. The volume of wool shown awaiting shipment reflects the fact that, in New South Wales, wool has always assumed its greatest importance in the export trade. Although, by 1920, New South Wales had become one of the greatest wool-producing areas in the world, it held relatively few manufacturers of woollen materials. Woollen mills were established very early in the colony's history, but the industry progressed slowly in N.S.W., except, perhaps, in the output of local tweed.



Under the provisions of the Wool Industry Act, payments of refunds to wool producers are, in general, made before the middle of November by registered persons (i.e. wool brokers or private treaty merchants) who collect the tax, or by direct claims to the Corporation from wool producers.

Tax contributions for 1977-78 were refunded during 1985-86. Total refunds since the inception of the fund total $188.8m.

The Minimum Floor Price Indicators for 1977-78 to 1986-87 are shown below. The basis for calculating the Indicator was updated for 1983-84 onwards to take account of long-term changes in the composition of wool produced . This resulted in the increase in the number of wool category indicators so as to provide a more reliable guide to wool prices.

Minimum Floor Price Indicator (cents per kilogram — clean wool)

1977-78	*1978-79*	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
284	298	318	365	410	*(a)*422	*(b)*470	470	500	508

(a) Revised to 454 cents per kilogram following 10.0 per cent devaluation of Australian dollar on 7 March 1983. *(b)* From 1983-84, there was a change in the method of calculation of the Market Indicator. (see text above table).

In 1980, legislative changes placed these arrangements on a continuing basis, applying from the start of the 1980-81 season. The legislation also provides for repayments of growers' contributions to the Market Support Fund on a "first-in-first-out" basis once the Fund has sufficient reserves to purchase one third of the clip at prevailing floor prices.

Wool Sales In New South Wales

Sydney is one of the largest primary wool markets in the world (Melbourne, Victoria is the largest), and the auction sales are attended by representatives of firms from almost all countries where woollen goods are manufactured. Sales are also held regularly in Newcastle and Goulburn. A considerable proportion of Riverina wool is delivered to Albury for storage and sold in Melbourne by separation. Generally, at least one series is held in Sydney each month during the season, the frequency in other centres depending on the quantity of wool to be offered at each in any season. About 82 per cent of the total New South Wales wool clip was sold through the auction system in 1985-86, and the remainder was sold privately (to dealers, direct to Australian manufacturers, or exported for sale overseas).

The quantity of wool and the proportion of various types and qualities sold each month vary considerably. Wool receivals at sales or storage centres are determined primarily by shearing patterns. Most growers prefer to sell their wool as soon as possible after shearing, due to the costs of holding stocks of wool, and cash flow factors. Shearing patterns tend to be influenced by such factors as the availability of shearers, time of lambing, and harvesting of crops. Wool receivals are also affected by speculation on the movement of wool prices on the wool market. Generally, wool of relatively low quality predominates at sales from April to August, and fine wool predominates from November to February. The quality of wool received at brokers' stores each month is governed largely by the order of shearing throughout the State; wool from early-shearing districts is generally coarser and usually carries more vegetable matter and dust than that from late-shearing districts. Approximately 80 per cent of all wool sold at auction in New South Wales is merino with the remainder being crossbred types.

In recent years increasing use has been made of the objective measurement of wool to enable "sale by sample". During the 1975-76 season, over 45 per cent of the wool passing through the auction system in New South Wales was sold by objective measurement. During the 1985-86 season, nearly all wool was sold by objective measurement. Furthermore, additional objective measurements of fibre length, strength and position of the break were used in sale of approximately 10 per cent of the wool. Increasing use has also been made of the sale by separation system whereby wool is sold by sample at one auction centre while the wool is stored at another centre.

Particulars of wool auction sales at principal selling centres in New South Wales are shown in the next table.

Wool Auction Sales in New South Wales *(a)*

Year	*Unsold in store at end of period*	*Wool sold during period*				*Amount realised*	*Average price realised per kg*
		Sydney	*Newcastle*	*Goulburn*	*Total*		
	'000kg	'000kg	'000kg	'000kg	'000kg	$'000	Cents
1980-81	5,346	69,741	31,740	21,605	123,087	316,797	257.38
1981-82	8,912	72,342	36,060	22,927	131,329	344,140	262.04
1982-83	5,847	69,480	37,264	25,089	131,833	352,079	267.06
1983-84	9,494	75,929	41,225	23,833	140,988	427,491	303.21
1984-85	7,934	90,595	41,542	27,834	159,971	539,364	337.16
1985-86	8,832	93,063	40,731	26,879	160,674	588,178	366.07

(a) Excludes Albury (regarded as a Victorian selling centre).

The quantity of wool sold and the amount realised, as shown in this table, are not comparable with New South Wales production statistics. Wool producers may retain stocks of wool on their holdings, especially in anticipation of improvements in market conditions. Fluctuations in the amounts of unsold wool held are gauged by means of an annual survey conducted by the Australian Bureau of Statistics to assist with the calculation of annual wool production. Sales include wool (usually small quantities) carried forward from the preceding season and wool from other States (mainly Queensland) forwarded to Sydney for sale, but exclude wool carried forward to the next season and wool grown in New South Wales and marketed interstate or overseas.

In 1985-86, 1,286,762 bales of greasy wool identified as of New South Wales origin were received in Australian auction centres. New South Wales centres (excluding Albury) received 73 per cent of these, while Melbourne and Albury accounted for 16 and 5 per cent respectively.

Figures compiled by the Sydney Wool Selling Brokers' Association show that it is usual for most of the wool received by brokers to be sold during the season in which it reaches the stores.

Exports of Wool from New South Wales

The value of exports of wool where New South Wales is the "state of origin" in recent years is shown below.

	1980-81	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Wool ($'000)	414,587	402,433	421,758	469,016	582,764	735,999

In 1985-86 the exports of wool represented approximately 10 per cent of total value of New South Wales exports.

The principal markets for Australian greasy wool in 1985-86 were Japan, U.S.S.R., Italy, France, China (excluding Taiwan), Federal Republic of Germany, Taiwan and the Republic of Korea. Approximately 76 per cent, by weight, of raw wool is exported from Australia in the greasy state, 11 per cent scoured and carbonised, and 13 per cent is exported on skins.

Wool Promotion and Research

Australian Wool Corporation

Wool promoting is a function of the Australian Wool Corporation and includes implementing programs to advertise wool merchandise, initiating new technical developments and marketing opportunities, controlling Woolmark and wool blendmark schemes, and, in general, developing an awareness and preference for wool. Promotional activities overseas are carried out through the International Wool Secretariat, which has its headquarters in London and branches in 34 countries, and is maintained jointly by the national wool organisations of Australia, New Zealand, South Africa, Uruguay and Brazil.

Wool Research and Development Council

The Wool Research and Development Council was established under the Wool Industry Amendment Act 1986. The Council is responsible for evaluating the research needs of the wool industry and for identifying priority areas for research expenditure. The Council, which consults with the Wool Council of Australia on research and development matters, reports its recommendations to the Australian Wool Corporation.

Wool Council of Australia

The Wool Council of Australia is an organisation which speaks with authority for the woolgrowing industry as a whole.

The Council makes recommendations to the Commonwealth Government on matters of policy concerning the wool industry, including the rates of wool levy to be paid by woolgrowers to finance wool research and promotion.

Wool Levy

A levy on woolgrowers has been imposed by the Commonwealth Government to provide funds for wool promotion, research and the administration of the Australian Wool Corporation's marketing activities.

Commonwealth Government Contribution to Promotion and Research

The Commonwealth Government contribution to wool promotion and research is made under the provisions of the *Wool Industry Act 1972*. In 1985-86 the Government contribution to wool promotion and research was $44.1m of which $31.1m went to wool promotion and $13m to wool research.

Wool Research

Research for the benefit of the wool industry is undertaken under programs approved by the (Commonwealth) Minister for Primary Industry after examination of proposals from research organisations. The range of research activity covers five broad areas: wool production; wool harvesting; textile research; economic investigations; and distribution research. A number of institutions are involved, notably the Commonwealth Scientific and Industrial Research Organization, the Bureau of Agricultural Economics, various universities, and State agricultural departments.

EGG MARKETING AND PRODUCTION

Egg Industry Act 1983

This Act abolished the Egg Marketing Board for the State of New South Wales as well as the Poultry Farmer Licensing Committee and removed the egg marketing legislation from the Marketing of Primary Products Act 1983. It established the New South Wales Egg Corporation and a re-constituted Poultry Farmer Licensing Committee, both of which are under the control and direction of the N.S.W. Minister for Agriculture.

New South Wales Egg Corporation

The New South Wales Egg Corporation consists of seven members, a Chairman and a Managing Director nominated by the Minister for Agriculture, four members appointed to represent egg producers in the State, and one appointed on the nomination of the Minister for Consumer Affairs. The Corporation's functions are the marketing and promotion of eggs and egg products. The Corporation organises the collection, grading, quality testing, packing, distribution and sale of shell eggs and also manufactures a range of egg products for sale on local and export markets. The Egg Industry Act 1983 vests eggs produced in the State, in the Corporation, requiring that they be delivered to the Corporation which sets wholesale prices and pays a uniform price to the producers for eggs delivered.

The Poultry Farmer Licensing Committee

The Poultry Farmer Licensing Committee consists of four members appointed by the Minister for Agriculture; one is the Chairman, two represent the Corporation and the fourth is a person with special qualifications. Its main functions are to advise the Minister on the State Hen Quota and to issue licences and permits. The Minister determines a State Hen Quota and this is distributed amongst the licensees by the Committee. The Egg Industry Act 1983 permits the surrender (as well as suspension) and re-issue of licences, the trading of quotas, and the seizure of hens and eggs from producers keeping hens in excess of the licensed quota. The Committee is also responsible for setting and collecting licence fees and for the supervision of conditions applying to licences. Generally the objectives of the Committee are to ensure the number of hens held in the State is sufficient to produce enough eggs to meet market needs, without there being a costly surplus of eggs. An additional method to assist in controlling production is provided by a voluntary suspension scheme, whereby under any voluntary agreement, such as leasing or surrender, between the Corporation and licensees, the whole or part of a hen quota is suspended, for a specific period.

Egg Export Committee

The Egg Export Committee, of which the New South Wales Egg Corporation is a member, operates under the direction of the Australian Egg Marketing Council to arrange for the sale of surplus eggs in shell and in manufactured product form on behalf of all States. However, the New South Wales Egg Corporation organises its own marketing of separated egg products.

Particulars of the operations of the Egg Marketing Board for the State of New South Wales in 1975-76 and for the years 1980-81 to 1982-83 are given in the following table. Details for 1983-84 and later years relate to the operations of the New South Wales Egg Corporation.

Operations of the Egg Marketing Board for New South Wales/New South Wales Egg Corporation
(Pool year)

Particulars	*1975-76*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Eggs under control of Board/ Corporation ('000 dozen) —							
Consigned to Board for disposal	66,307	68,146	63,325	63,370	63,551	53,769	47,542
Sold by producer-agents	15,865	15,525	16,190	16,584	18,294	20,800	24,284
Total eggs	**82,172**	**83,671**	**79,515**	**79,954**	**81,845**	**74,569**	**71,826**
Payments to consignors —							
Amount ($'000)	47,242	63,120	64,385	72,487	71,503	61,691	54,691
Average gross return *(a)* (cents per doz.)	71.2	r105.6	r101.7	r114.4	r112.5	r114.7	115.0
Average net return *(b)* (cents per doz.)	49.5	78.8	88.9	94.5	87.0	92.6	97.9
Liquid egg pulp produced *(c)* ('000 kg)	14,140	r13,003	r12,104	r11,387	r11,244	r6,858	5,966
Dried egg powder produced *(d)* ('000 kg)	192	175	202	147	265	361	288

(a) Net of Wholesale margin. *(b)* Average gross return less Board/Corporation charges and Commonwealth industry levies. *(c)* Includes liquid whole egg, liquid white, liquid egg yolk and liquid whole egg received direct from producers. *(d)* Includes dried whole egg, dried albumen, dried egg yolk.

The greater proportion of the eggs under the control of the Corporation are consigned direct to the Corporation for disposal. Individual producers are, however, authorised as producer-agents to deal directly with retailers within the framework of prices set by the Corporation. Sales by producer-agents are confined to those customers to whom direct delivery can be made.

The quantity of eggs under the control of the Board/Corporation in a pool year, as shown in the above table, does not represent the total production of eggs in the State in that year. Other eggs are produced by poultry-keepers who evade, or are exempt from, the Egg Industry Act 1983.

Wholesale Prices of Eggs

The average annual price per dozen of new-laid, first-quality hen eggs in Sydney in 1974 and more recent years is shown below.

1976	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
$0.85	$1.28	$1.37	$1.50	$1.49	$1.48	$1.53

These prices are the Egg Marketing Board/New South Wales Egg Corporation average prices to retailers for eggs weighing 55g.

Production Quotas

In 1971, a quota system was introduced to limit the number of hens producing eggs for human consumption. Base quotas, based on flock size, were introduced and administered by the Poultry Farmer Licensing Committee and became effective in 1974, the State quota then being 5.4 million hens. This was subsequently changed to 4.9m in 1977, 4.5m in 1978, 4.6m in 1979, 4.2m in 1981 and 4.1m in 1984. A condition of licence was introduced from 1 November 1983 allowing producers to keep only hens equivalent to 90 percent of their quotas. This was adjusted to 80 percent from 4 July 1984, 83 percent from 18 December 1984, 80 percent from 1 July 1985, 77 percent from 1 September 1985, 79 percent from 22 September 1986, 85 per cent from 29 September 1986 and 95 per cent from 22 December 1986.

Poultry Industry Levy

In terms of the *Poultry Industry Levy Act 1965* and the *Poultry Industry Assistance Act 1965*, the Commonwealth Government imposes a levy on the owners of hens. The funds collected are used to provide financial assistance to all States and to make an industry contribution to poultry/eggs research. The levy is imposed as a rate per fortnight on all flocks in excess of twenty hens kept for commercial production. The maximum annual levy which is collected by the respective State Egg Boards, on behalf of the Poultry Industry Trust Fund is $2.00 per hen (the operative rate being $1.30 per hen in 1985-86). (The Trust Fund was created under the Poultry Industry Assistance Act as a trust account for levies collected.)

In August 1984, the Commonwealth Government announced its intention to phase out the hen levy by July 1987 in line with industry plans to reduce surplus production. However, certain provisions of the levy legislation will continue beyond that date, to facilitate collection of outstanding levies. Other arrangements are to be made to fund research. In line with this decision to phase out the levy, the operative rate for 1986-87 has been set at $0.65 per hen per annum.

Poultry Industry Research

Funds from part of the proceeds of the hen levy on owners of hens (described above) may be used as expenditure on scientific, technical, economic, and marketing research of benefit to the poultry industry. This expenditure is authorised by the Minister for Primary Industry on the advice of the Poultry Research Council. Such expenditure is matched by the Commonwealth Government on a dollar for dollar basis.

The Poultry Research Council was established under Rural Industries Research Act 1985, to provide advice on the promotion and funding of research into the poultry industry. For 1986-87, the poultry research program will cost approximately $500,000, and will include grants to State Departments of Agriculture, CSIRO, universities and other tertiary institutions.

Overseas Marketing of Eggs and Egg Products

Until 31 December 1984, the overseas export of Australian eggs and egg products was subject to control by the Australian Egg Board. However, due to the restriction of export surpluses by all States, the Australian Egg Board was abolished under the *Egg Export Legislation Repeal Act 1984*. This Act also makes each State responsible for the handling of its own exports of eggs and egg products. Particulars of the overseas exports of eggs from New South Wales since 1980-81, on a "state of origin" basis are shown below.

	Year ended 30 June —					
Eggs	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
In shell ('000 doz)	479	379	1,194	3,359	1,112	705
Other ('000 kg) *(a)*	3,877	2,942	2,236	4,961	3,769	2,226
Value ($A'000 f.o.b.)	5,609	4,960	4,254	6,301	6,103	4,014

(a) Eggs not in shell.

Goat Products

Goat fibre and milk production in New South Wales for the 1985 season (year ended 31 March) was as follows: mohair (fleece) 191,633 kilograms; cashmere (fleece) 12,023 kilograms; goat milk 786,366 litres. Mohair and cashmere production occurred mainly in the South-Eastern and Central West statistical divisions, and goat milk production mainly took place in the Sydney and Central West statistical divisions.

HONEY AND BEESWAX PRODUCTION

The beekeeping industry in New South Wales is well established, producing honey for local and overseas consumption. Most commercial apiarists operate on a migratory basis to take advantage of the best sources of nectar and pollen. While most operators extract their honey in mobile plants, the number of central extracting plants is increasing. Honey is obtained from the flora of many varieties of native eucalypts and introduced crops and pasture plants. In addition, pollination of crops by honey bees as a source of income for beekeepers is increasing.

The industry is subject to regulation in terms of the Apiaries Act 1985, in order to prevent the spread of disease amongst bees. Frame hives must be used, and beekeepers must register their apiaries every two years with the Department of Agriculture. Registration fees are based on the number of hives in the apiary.

The number of hives and the production of honey and beeswax in New South Wales in 1975-76 and recent years are shown in the following table.

Bee Hives and Honey and Beeswax Production *(a)* N.S.W.
(Year ended 30 June)

Particulars	*1976*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Number of beekeepers (at 30 June)	833	798	878	874	783	871	805
Bee hives (number) —							
From which honey was taken	133,225	125,859	149,428	154,816	151,868	163,993	154,990
From which no honey was taken *(b)*	58,609	74,367	66,691	67,848	63,833	59,011	58,345
Total bee hives	*191,834*	*200,226*	*216,119*	*222,664*	*215,701*	*223,004*	*213,335*
Honey produced ('000 kg)	7,085	5,701	8,828	8,789	10,260	11,149	9,875
Yield of honey per productive hive (kg)	53.2	45.3	59.1	56.8	67.6	68.0	63.7
Beeswax produced (kg)	122,329	106,071	161,214	174,458	189,165	199,757	176,074

(a) Statistics relate only to apiaries with forty or more hives. *(b)* Includes nuclei, small hives and pollination hives.

On a "State of origin" basis, overseas exports of honey from New South Wales in 1985-86 amounted to 3,940 tonnes, valued at $4.3m.

A levy on honey sold for consumption in Australia has been imposed by the Commonwealth Government, in terms of the *Honey Levy Acts* (Nos 1 and 2 of 1962). The operative rate of the levy for 1985-86 was 2.2 cents per kilogram.

In addition, the *Honey Export Charge Act 1973* imposes a charge of 0.5 cents per kilogram on honey exports. The proceeds of the levies are used to finance the regulation of overseas exports of honey and associated promotional activities of the Australian Honey Board. Under the Honey Levy Acts and the Honey Export Charge Act 1973, an additional levy of 0.35 cents per kilogram is imposed to finance research activities into the scientific, technical, and economic aspects of beekeeping and the production, packing and marketing of hive products. This includes the training of research personnel, publication of research findings, and dissemination of information and advice.

VALUE OF LIVESTOCK PRODUCTS

The following table shows the value of livestock products in New South Wales in recent years. The *gross value* shown represents the items of agricultural production valued at the principal market place. The *local value* represents the gross value less the estimated costs of marketing.

Livestock Products: Gross and Local Values, N.S.W. ($'000)

Livestock product	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Gross value			
Wool —						
Shorn and crutched	477,406	550,071	560,969	660,479	802,358	888,294
Other *(a)*	32,584	25,237	24,226	26,961	36,637	49,989
Total, wool	*509,990*	*575,308*	*585,195*	*687,439*	*838,995*	*938,283*
Production of milk —						
Market milk *(b)*	151,581	184,103	195,572	181,308	195,101	179,399
Milk for other purposes *(c)*	36,000	52,014	56,604	56,550	46,973	40,555
Total, whole milk	*187,581*	*236,117*	*252,176*	*237,858*	*242,074*	*219,954*
Eggs	98,677	102,515	110,522	116,726	114,982	121,003
Honey and beeswax	4,912	7,189	6,748	8,399	9,091	9,920
Total, livestock products	**801,160**	**921,129**	**954,641**	**1,050,423**	***(d)*1,209,472**	**1,289,160**
			Local value			
Wool —						
Shorn and crutched	449,834	516,941	525,834	625,230	754,436	837,762
Other *(a)*	32,584	25,237	24,226	26,961	36,637	49,989
Total, wool	*482,418*	*542,178*	*550,060*	*652,191*	*791,073*	*887,751*
Production of milk —						
Market milk *(b)*	133,783	164,395	175,311	181,308	195,101	179,399
Milk for other purposes *(c)*	36,000	52,014	56,604	56,550	46,973	40,555
Total, whole milk	*169,783*	*216,409*	*231,915*	*237,858*	*242,074*	*219,954*
Eggs	88,316	91,038	100,430	101,395	95,170	101,232
Honey and beeswax	4,912	7,189	6,748	8,399	9,091	9,920
Total, livestock products	**745,429**	**856,814**	**889,153**	**999,844**	***(d)*1,141,502**	**1,218,857**

(a) Includes the value of dead and fellmongered wool and the value of wool on skins. *(b)* As milk for human consumption. Prior to 1983-84, marketing costs have been included in gross value and excluded from local value. From 1983-84 they have been excluded from both values. *(c)* Includes milk used for butter, cheese, and other milk products. *(d)* Includes the value of goat products: gross value = $4,330,105 and local value = A$4,094,031.

FURTHER REFERENCES

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Other Publications: Annual Reports of the Australian Meat and Live-stock Corporation, Australian Meat and Live-stock Industry Policy Council, Department of Primary Industry, Australian Meat Research Committee (now the Australian Meat and Live-stock Research and Development Corporation), Pig Research Council, Australian Chicken Meat Research Committee, Australian Dairy Research Committee, Australian Dairy Corporation, Australian Honey Board, Australian Wool Corporation, New South Wales Department of Agriculture, Australian Wheat Board, Australian Dried Fruits Corporation, Australian Canned Fruits Corporation, Australian Apple and Pear Corporation, Australian Tobacco Board, Australian Wine and Brandy Corporation, Soil Conservation Service, Rural Assistance Board, Commonwealth Development Bank of Australia, Primary Industry Bank of Australia Limited, the Reserve Bank of Australia and the State Bank of New South Wales. Annual Reports of the New South Wales Egg Corporation, New South Wales Meat Industry Authority, New South Wales Dairy Corporation, New South Wales Dried Fruits Board, Rice Marketing Board, Murray Valley (N.S.W.) Citrus Marketing Board, N.S.W. Tobacco Leaf Marketing Board, Barley Marketing Board, Central Coast (N.S.W.) Citrus Marketing Board, Grain Sorghum Marketing Board, Oats Marketing Board, Oilseeds

Marketing Board, Wine Grapes Marketing Board, Yellow Maize Marketing Board, Agricultural Marketing Finance Agency, Catchment Areas Protection Board and Grain Handling Authority of New South Wales. *Rural Industry Information Papers* published by the Department of Primary Industry; *Quarterly Review of the Rural Economy* published by the Bureau of Agricultural Economics and *Statistical Bulletin* of the Reserve Bank of Australia. The Bureau of Agricultural Economics and the Department of Agriculture both publish regular bulletins on general and specific aspects of agricultural production. *A Basis for Soil Conservation Policy in Australia:* Commonwealth and State Government Collaborative Soil Conservation Study 1975-77, *Report No 1* (Australian Government Publishing Service: Canberra, 1978). *Rural Adjustment* : Industries Assistance Commission, *Report 344, 15 March 1984* (Australian Government Publishing Service : Canberra, 1984).

17

MINING AND ENERGY

MINING

New South Wales contains a wide variety of significant mineral deposits. Coal was discovered as early as 1796, and the announcement in 1851 that gold had been discovered excited world-wide interest and led to a rapid flow of immigration. Copper and tin deposits were opened up later, and while neither are now of major importance, copper production did rise to significant levels when major developmental work led to the re-commencement of copper mining at Cobar in the 1960's and the development of the copper mine at Woodlawn in the late 1970's. Extensive silver-lead-zinc deposits have been mined at Broken Hill since 1883, and soon surpassed gold in the value of their annual yield. Production from Broken Hill has been supplemented by silver-lead-zinc mining operations at Cobar, Woodlawn and Elura.

In the present century, coal and silver-lead-zinc mining have been the predominant mining industries in the State. Coal mining accounted for 76 per cent of the value of minerals produced in New South Wales in 1985-86, while the Broken Hill area continues to be the largest producer of zinc and one of the major producers of lead and silver in Australia; altogether, silver-lead-zinc mining provides 9 per cent of the value of New South Wales mineral production.

The mineral sands industry, operating principally along the northern New South Wales coastline, underwent a marked expansion from 1939 to 1972 to become a significant mining industry. However, since 1972 the output of the industry steadily declined due to lower metal prices and environmental constraints permitting only some high grade reserves to be mined.

MINING INDUSTRIES

Australian Standard Industrial Classification

The statistical reporting units, the Australian Standard Industrial Classification (ASIC), and the standardised data items used in the conduct of the annual mining census and the other integrated economic censuses and surveys from 1968-69 are described in Appendix B "Integrated Economic Censuses and Surveys" in the 1985 edition of the N.S.W. Year Book. A more detailed description of the Mining Division of the ASIC is given below.

Classification of Mining Establishments

The "mining industries", as identified in the Australian Standard Industrial Classification, include all establishments engaged mainly in mining or mineral exploration, as well as mining establishments under development. The term "mining" is used in the broad sense to include the extraction of minerals occurring naturally as solids (such as coal and ores), liquids (such as crude petroleum), or gases (such as natural gas), by such processes as underground mining, open-cut extraction methods, quarrying, operation of wells or evaporation pans, dredging, or recovering from ore dumps or tailings.

Establishments engaged mainly in dressing or beneficiating ores or other minerals by crushing, milling, screening, washing, flotation, or other (including chemical beneficiation) processes are included in the "mining industries" — because these activities are generally carried out in treatment works situated at or in the locality of a mine as an integral part of mining operations. The screening and washing of coal are included in mining activity when undertaken at a mine or at plants centrally situated to serve a number of mines in the locality.

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Establishments engaged mainly in the refining or smelting of minerals or ores (other than the preliminary smelting of gold), or in the manufacture of products of mineral origin (such as coke, cement, or fertilisers), are not included in the "mining industries" (whether or not the works are situated in the locality of the mine).

Summary Statistics of Operations

Detailed statistics of operations and minerals produced for the mining industries in New South Wales are published in a separate annual bulletin, *Mining* (Catalogue No. 8401.1). A summary of operations of establishments engaged in the mining industries during recent years is given in the following table. Definition of items listed can be found in the Annual Mining Bulletin or in Appendix B to the 1985 edition of the N.S.W. Year Book.

Mining Establishments *(a)* in N.S.W.: Summary of Operations, by Industry Subdivision

Industry subdivision	*ASIC code no.*	*Establishments at 30 June(b)*	*Average employment over whole year(c)*	*Wages and salaries paid(d)*	*Value added (e)*	*Fixed capital expenditure(f)*
				$'000		
			1983-84			
Metallic minerals	11	47	4,839	106,251	233,077	31,236
Coal *(g)*	12	94	19,882	629,804	1,253,938	238,933
Construction materials *(h)*	14	291	1,741	34,990	129,600	7,396
Other non-metallic minerals	15	131	632	11,327	23,364	2,594
Total, mining		**563**	**27,094**	**782,372**	**1,639,980**	**280,158**
			1984-85			
Metallic minerals	11	47	4,639	113,173	179,873	43,223
Coal *(g)*	12	92	19,380	650,111	1,337,438	223,735
Construction materials *(h)*	14	312	1,928	43,182	167,753	10,729
Other non-metallic minerals	15	122	578	10,101	24,288	2,698
Total, mining		**573**	**26,525**	**816,567**	**1,709,352**	**280,385**
			1985-86			
Metallic minerals	11	39	4,518	126,950	224,755	n.a.
Coal *(g)*	12	92	19,690	713,429	1,724,755	n.a.
Construction materials *(h)*	14	280	1,893	43,575	178,446	n.a.
Other non-metallic minerals	15	105	548	10,195	26,998	n.a.
Total, mining		**516**	**26,649**	**894,148**	**2,154,953**	**n.a.**

(a) Excludes establishments engaged mainly in opal mining, exploration activities, and other services to the mining industries. *(b)* Includes establishments that have operated intermittently throughout the year and are expected to operate on this basis every year. *(c)* Includes working proprietors. *(d)* Excludes the drawings of working proprietors. *(e)* Represents sales, transfers out, bounties and subsidies on production, all other operating income, and capital work done for own use, *plus* increase (or *less* decrease) in the value of stock, *less* purchases, transfers in, and selected expenses. *(f)* Outlay on fixed tangible assets, less disposals. Includes capital expenditure at separately located administrative offices and ancillary units in the State. This data was not collected for 1985-86. *(g)* Employment, wages and salaries and capital expenditure data for ASIC Subdivision 13, Oil and Gas, have been included in Subdivision 12, Coal. *(h)* Data for 1983-84 and 1984-85 include four establishments classified to Industry subdivision 14, Construction materials, operating in the Australian Capital Territory. Data in respect of 1985-86 for these establishments are excluded.

MINERALS PRODUCED

Statistics of the Quantity and Value of Minerals Produced

In addition to statistical information on New South Wales coal being provided by the Joint Coal Board, statistics of the quantity and value of minerals produced are obtained from returns collected by the N.S.W. Department of Mineral Resources in respect of:

(a) all establishments coming within the scope of the annual mining census (i.e. classified as mining establishments);
(b) those establishments which were classified as non-mining establishments, but which, as a subsidiary activity, carried out mining activities; and
(c) itinerant and part-time miners.

Measurement of Output

In presenting statistics of minerals produced in New South Wales, minerals are divided into four major groups — metallic minerals, coal, construction materials, and other non-metallic minerals.

The quantities and values of individual minerals produced are recorded, in general, in the form in which the minerals are despatched from the mine or from associated treatment works in the locality of the mine. Thus for metallic minerals, the output is recorded as ore if no treatment is undertaken at or near the mine, and as a concentrate if ore-dressing operations are carried out in associated works in the locality of the mine. In the case of coal produced in New South Wales, the quantity of coal shown in this Section is either the quantity of raw coal or saleable coal produced. Raw coal is the gross output drawn from the mine, prior to treatment in coal washeries for removal of unwanted material, but excluding dirt and chitter dumped or not otherwise used. The quantity of saleable raw coal is, the total quantity of raw coal produced less the quantity of raw coal treated in coal industry washeries, whereas the quantity of saleable washed coal is the total quantity of washed coal produced within the coal mining industry. The value of coal produced is, in all cases, the value of saleable coal produced.

For particular minerals (e.g., those which do not have a marketable value until they are sold or despatched from a mine), despatches (or sales) are used as the more appropriate quantitative measure of production.

The quantities of the principal metals, etc. contained in the metallic ores and concentrates produced are also recorded. Quantities derived in this way are known as the *mine production* of the various metals, etc. They represent gross contents as determined by assay, excluding contents which are not recoverable or for which penalties are imposed because of difficulties in refining. No allowance has been made for losses in smelting and refining, and the quantities shown are therefore, in general, greater than the contents actually recoverable.

Method of Valuation

The output of individual minerals is valued at the mine or at associated treatment works in the locality of the mine. This valuation is derived, in general, by valuing the quantity produced during the year at the unit selling value of the mineral during the year (including any subsidy) less any transport costs incurred in transporting the mineral from the mine (or associated treatment works) to the point of sale. (Special values of output, based on actual or estimated realisations for the year's production, are supplied by certain large mineral producers.)

Metallic Minerals and Sulphur

Quantity and Value of Metallic Minerals

Metallic Minerals Produced in N.S.W.

Mineral	*Unit of quantity*	*Quantity*			*Value ($'000)*		
		1983-84	*1984-85*	*1985-86*	*1983-84*	*1984-85*	*1985-86*
Antimony concentrates *(a)*	tonne	471	1,388	1,146	378	2,767	1,910
Antimony-gold concentrates *(a)*	tonne	59	70	120	64	27	65
Bismuth	tonne	—	—	—	—	1	—
Copper concentrates	tonne	87,967	72,406	97,110	21,018	21,661	30,634
Copper-gold concentrates	tonne	34	—	—	222	—	—
Gold concentrates *(a)*	tonne	1,091	49	25	1,521	1,861	2,353
Gold ore *(a)*	tonne	3	916	154	—	14	8
Gold concentrates from tailings dumps *(a)(b)*	tonne	—	2,434	754	—	1,066	882
Gold — other forms *(a)(c)*	kilogram	191	280	680	1,575	1,459	3,926
Ilmenite concentrates *(a)(d)*	tonne	16,780	15,115	17,929	268	244	309
Iron oxide *(a)*	tonne	14,384	7,043	7,279	186	102	84
Lead concentrates from newly won ore	tonne	289,411	349,727	329,413	100,190	110,819	108,374
Lead concentrates from slime dumps	tonne	416	4,938	13,403	172	443	1,816
Lead-zinc concentrates from newly won ore	tonne	20,045	24,261	20,881	7,336	5,158	3,920
Lead-zinc concentrates from slime dumps	tonne	17,887	22,015	—	2,450	2,880	—
Monazite concentrates *(a)*	tonne	495	984	495	182	475	257
Rutile concentrates *(d)*	tonne	35,272	35,599	40,696	8,731	12,815	20,740
Silver-lead ore *(a)*	tonne	1,696	1,231	1,126	246	158	152
Silver concentrates *(a)*	tonne	—	—	9	—	—	49
Tin concentrates *(e)*	tonne	2,832	2,430	2,479	17,766	17,112	13,758
Wolfram concentrates *(a)*	tonne	—	2	5	3	12	24
Zinc ore *(a)*	tonne	—	415	—	—	39	—
Zinc concentrates from newly won ore	tonne	564,663	662,683	623,819	144,174	191,739	143,665
Zinc concentrates from slime dumps	tonne	23,655	35,201	37,846	6,630	7,758	7,490
Zircon concentrates *(d)*	tonne	59,779	47,589	54,149	7,271	6,043	8,476
Total metallic minerals produced		. .	. .	. .	**320,383**	**384,653**	**348,895**

(a) Despatches from the mine (or sales), as distinct from production. *(b)* Prior to 1984-85 included with gold concentrates. *(c)* Includes bullion, alluvial, and retorted gold. *(d)* Includes concentrates finally separated in Queensland from zircon-rutile concentrates recovered in N.S.W.; excludes concentrates recovered in Queensland and finally separated in N.S.W. *(e)* Production by large producers; despatches from the mine by small producers.

Contents *(a)* of Metallic Minerals and Sulphur Produced in N.S.W.

				1985-86		
Metal, etc.	*Unit of quantity*	*1983-84 Total*	*1984-85 Total*	*Available for recovery in Australia*	*Destined for export in ores, etc.*	*Total*
Antimony	tonne	718	1,409	333	925	1,258
Cadmium	tonne	1,339	1,735	508	686	1,194
Cobalt	tonne	60	66	15	40	55
Copper	tonne	25,541	23,038	18,902	7,756	26,658
Gold	kilogram	966	1,461	739	271	1,010
Lead	tonne	213,154	251,595	177,240	55,919	233,159
Manganese	tonne	4,025	4,593	1,576	2,806	4,382
Monazite	tonne	445	886	*(b)*	*(b)*	446
Silver	kilogram	304,314	355,827	230,632	137,618	368,251
Sulphur	tonne	220,203	248,681	107,789	144,441	252,230
Tin	tonne	1,388	1,306	781	499	1,280
Titanium dioxide *(c)*	tonne	41,392	41,283	*(b)*	*(b)*	47,240
Tungstic oxide	tonne	—	1	—	3	3
Zinc	tonne	330,940	385,075	128,479	226,964	355,443
Zircon *(c)*	tonne	59,181	47,113	*(b)*	*(b)*	53,607

(a) These are gross contents of metallic minerals produced, as determined by assay, and make no allowance for losses in smelting or refining. *(b)* Dissection not available — mainly for export overseas. *(c)* Includes the metallic contents (when finally separated) of zircon-rutile concentrates recovered in N.S.W. and finally separated in Queensland (nil in 1984-85); *excludes* the metallic contents of concentrates recovered in Queensland and finally separated in N.S.W.

Quantity of Metals, Sulphur, etc. in Metallic Minerals

The contents of metallic minerals produced in the State are reassembled in the previous table to show the total quantity of the principal metals, etc., contained in the metallic ores and concentrates produced. The total quantity of copper shown in this table, for example, is the aggregate copper content of all copper-bearing minerals (copper concentrates, lead concentrates, zinc concentrates, etc.). The dissection between contents "Available for recovery in Australia" and those "Destined for export in ores, etc." is based on advice received from mineral producers and ore buyers.

Antimony. Antimony concentrates are the principal source of antimony within New South Wales, accounting for about 60 per cent of total antimony contained in the metallic ores and concentrates produced during 1985-86. The only significant producer of antimony concentrates is located at Hillgrove, near Armidale. Lead concentrates produced at Broken Hill are another important source of antimony; antimony is recovered in the form of antimonial lead during treatment of the concentrates at Port Pirie (South Australia).

Copper. Copper ore bodies occur widely throughout New South Wales, but exploitation has been handicapped by the low grade and/or small size of most deposits. Most of the copper at present produced in the State is contained in the copper concentrates produced at the CSA mine near Cobar and Woodlawn mine near Goulburn, and in the lead and zinc concentrates produced at Broken Hill. About two-thirds of the production of copper concentrates from the Cobar and Woodlawn mines was sent to Port Kembla for smelting in 1985-86. Port Kembla also receives copper matte (from treatment of lead concentrates at Port Pirie) and copper residues (from treatment of zinc concentrates at Risdon, Tasmania) for further treatment.

Mine production of copper in recent years is given in the next table.

Mine Production of Copper, N.S.W.
(tonnes)

Mineral in which contained	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Copper-gold concentrate	—	—	88	9	—	—
Copper concentrates	10,210	15,814	20,231	19,733	16,751	20,786
Gold concentrates	5	3	—	—	—	—
Lead concentrates *(a)*	5,188	4,530	4,339	3,561	3,994	3,367
Lead-zinc concentrates *(b)*	119	295	170	172	213	110
Zinc concentrates	1,499	2,273	2,050	2,066	2,080	2,438
Zinc-lead ore	141	—	—	—	—	—
Total copper	**17,162**	**22,915**	**26,878**	**25,541**	**23,038**	**26,701**

(a) Includes "lead-zinc concentrates from slime dumps" in 1980-81. *(b)* "Lead-zinc concentrates from slime dumps" are included in "lead concentrates" in 1980-81.

Gold. Nearly one half of the gold currently being produced in the State is recovered as a by-product from silver, lead, and zinc ores mined at Broken Hill, Cobar and Woodlawn. The most significant single producer during 1985-86 was the New England Antimony Mines N.L. at Hillgrove near Armidale. The balance was made up by three gold producers located at Browns Creek near Blayney, Canbelego and Calarie near Forbes and some small operations and fossickers.

The current trend is for primary gold production to become more significant, relative to by-product output and in 1986-87 new significant gold producers commenced operations at Bingara, Cobar, Cooma, Wellington, West Wyalong, and Temora.

A table showing the quantity and value of the mine production of gold, since its discovery in this State in 1851, was shown on page 1011 of Year Book No. 64.

Mineral Sands (Zircon, Rutile, Ilmenite, and Monazite). Rutile, zircon, ilmenite, and monazite concentrates are recovered from naturally concentrated sands along the coast of New South Wales, principally in the Newcastle area and the far North Coast. The sands are mined mainly by dredging, and the heavy minerals are concentrated by gravity techniques and separated into the saleable concentrates using magnetic and electrostatic methods. Most mining operations are now confined to back-dunes and swamp areas. Available high-grade deposits have been virtually exhausted.

The principal uses of rutile concentrates, which account for the greater part of the value of output of the industry, are in the manufacture of titanium dioxide pigment for paints, the coating of welding rods, and the production of titanium metal. Despite the extensive use of rutile by overseas pigment manufacturers the demand for Australian rutile concentrates has fallen steadily in recent years.

Zircon concentrates are used mainly in the ceramic, refractory, and foundry fields, and minor quantities are used in the production of zirconium metal.

Ilmenite concentrates are produced in large quantities during separation of the mineral sands. Normally ilmenite concentrates are used for synthetic rutile manufacture but a chrome impurity in N.S.W. ilmenite concentrates renders them unsuitable for this use. They are also used in limited quantities in sand blasting and as a supplement to normal steel furnace feed. Monazite concentrates are recovered only in small quantities and are increasingly being processed to produce rare earth oxides and metals.

The following table shows production of the mineral sands industry in New South Wales during recent years. Most of the industry's output is exported overseas.

Mine Production of Titanium Dioxide, Zircon, and Monazite, N.S.W. (tonnes)

Mineral sand	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Titanium dioxide						
Contents of—						
Rutile concentrates *(a)*	95,404	65,314	36,732	33,840	34,120	38,984
Ilmenite concentrates *(a)*	15,617	15,140	10,880	7,552	7,163	8,256
Total titanium dioxide (a)	*111,021*	*80,454*	*47,612*	*41,392*	*41,283*	*47,240*
Zircon content of zircon concentrates *(a)*	113,009	88,479	55,588	59,181	47,113	53,607
Monazite content of monazite concentrates	391	357	360	445	886	446

(a) Includes the metallic content (when finally separated) of zircon-rutile concentrates recovered in N.S.W. and finally separated in Queensland. (In 1985-86, no zircon-rutile concentrates were recovered in N.S.W.) *Excludes* the metallic content of zircon-rutile concentrates recovered in Queensland and finally separated in N.S.W. (Nil during 1985-86.)

Silver, Lead, and Zinc. Silver-lead-zinc mining in New South Wales is dominated by the mines working the Broken Hill field, situated 1,125 kilometres by rail west of Sydney and 412 kilometres from Port Pirie (South Australia). The only other significant producers are the Woodlawn mine near Goulburn and the CSA and Elura mines near Cobar.

The Broken Hill lode is a massive, high-grade ore deposit. The ore body is formed of mixed sulphides of lead and zinc with a high silver content and, near the surface, oxides and carbonates of lead with various silver minerals. The ore is mined mainly by open stoping and horizontal cut and fill methods, and is concentrated at Broken Hill by flotation methods. From the inception of operations in 1883 to the end of 1985-86, 153 million tonnes of ore had been extracted. The average grade of the ore mined during 1985-86 is about 6.6 per cent lead, 83 grams silver per tonne and 7.8 per cent zinc. Apart from the silver, lead and zinc contents, the concentrates also contain gold, copper, cadmium, cobalt, antimony, sulphur and manganese, which are recovered during smelting and refining.

The bulk of the lead concentrates produced at Broken Hill is railed to Port Pirie for sintering, smelting, and refining; the lead finally emerges as a market product assaying 99.97 or 99.99 per cent lead, depending on trace elements present in the concentrates. During the refining process, the silver and gold contained in the bullion are extracted in a high state of purity; refined cadmium and antimonial lead are also produced, and the copper in the concentrate is recovered in the form of copper matte and despatched to Port Kembla or overseas for further treatment. Sulphuric acid is produced from the lead sinter gas.

More than half of the zinc concentrate currently produced at Broken Hill is despatched to Risdon (Tasmania) and Cockle Creek, near Newcastle, for smelting and refining; the remainder is exported overseas. At the Risdon plant, refined zinc (mostly at 99.95 per cent purity but occasionally at 99.99 per cent purity) and cadmium are produced after the concentrates have been roasted for the recovery of sulphur dioxide for sulphuric acid production; copper residues and silver-lead residues obtained during refining are despatched to Port Kembla and Port Pirie, respectively, for further treatment.

Lead and zinc concentrates are also produced at the CSA and Elura mines near Cobar. The lead concentrates produced from the CSA mine are despatched to Cockle Creek for smelting; the lead bullion produced is exported overseas for treatment. Part of the lead concentrates from the Elura mine are despatched to Port Pirie (South Australia) for the production of primary refined lead and the balance is exported. The zinc concentrates are despatched to Cockle Creek (from CSA mine) and Risdon (from Elura mine) for treatment. Cadmium, sulphuric acid and copper-lead drosses are recovered as by-products during the smelting and refining processes.

The Woodlawn copper-lead-zinc-silver deposit, situated 50 km south of Goulburn, was discovered in 1969. The surface gossan and supergene ore were mined by open pit in 1977-78 and open pit mining of the copper ore and primary (sulphide) lead-zinc-silver ore body commenced in 1978. The open pit operation was closed in 1987. The life of the mine is being extended by up to ten years through mining underground. At 31 December 1986, proved reserves were 0.6 million tonnes of complex ore with an average grade of 1.4 per cent copper, 4.7 per cent lead, 11.5 per cent zinc and 99 grams per tonne silver; and 0.1 million tonnes of copper ore with an average grade of 2.7 per cent copper and 18 grams per tonne silver. Probable reserves are estimated at 1.3 million tonnes of complex ore at similar grades. Ore concentration is carried out at the mine, there being two circuits — a copper ore circuit and a complex ore circuit. Copper concentrate from the copper circuit is sent to Port Kembla for smelting. The complex ore concentrating circuit produces copper, lead and zinc concentrates. Part of these concentrates are smelted in Australia (copper concentrate at Port Kembla, lead concentrate at Cockle Creek near Newcastle and Port Pirie in South Australia, and the zinc concentrate at Cockle Creek) with the remainder being exported overseas.

A silver-lead-zinc deposit at Elura, 41km north of Cobar, was discovered in 1973. Extraction of ore commenced in January 1983. At 30 June 1986, proved reserves were 22.1 million tonnes of primary ore with an average grade of 8.7 per cent zinc, 5.9 per cent lead and 146 grams per tonne silver. Probable reserves were estimated at 4.6 million tonnes assaying 8.3 per cent zinc, 6.5 per cent lead and 47 grams silver per tonne. After treatment of the ore at the mine, the zinc and silver-lead concentrates are railed to Newcastle. The zinc concentrates are shipped to Risdon in Tasmania for smelting. Part of the silver-lead concentrates are sent to Port Pirie for smelting and refining with the remainder being exported overseas.

The following table shows the mine production of lead and zinc in New South Wales during recent years.

Mine Production of Lead and Zinc, N.S.W. (tonnes)

Mineral in which contained	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Lead			
Lead concentrates *(a)*	207,725	225,366	208,779	183,224	217,755	203,986
Zinc concentrates	11,203	14,675	14,335	15,697	18,767	21,332
Other minerals *(b)*	6,010	12,990	14,323	14,233	15,073	7,952
Total lead	**224,938**	**253,031**	**237,437**	**213,154**	**251,595**	**233,270**
			Zinc			
Zinc concentrates	279,228	319,159	338,988	296,430	346,823	318,682
Lead concentrates *(a)*	22,438	20,373	18,961	17,476	21,753	23,843
Other minerals *(b)*	7,515	17,653	16,834	17,034	16,499	12,918
Total zinc	**309,181**	**357,185**	**374,783**	**330,940**	**385,075**	**355,443**

(a) Includes "lead-zinc concentrates from slime dumps" in 1980-81. *(b)* Includes "lead-zinc concentrates from slime dumps" since 1981-82. These are included in "lead concentrates" in 1980-81.

The quantity of refined lead produced in Australia exceeds local requirements, and a substantial proportion is exported. Lead is used mainly in the manufacture of storage batteries, lead sheet and pipe, pigments and chemicals, cable sheathing and alloys, solder and ammunition.

Of the total mine production of zinc in 1985-86, 226,964 tonnes (64 per cent) were contained in concentrates destined for export, and the balance was available for recovery in Australia. Part of the zinc refined in Australia is also exported. Zinc is used mainly in galvanising; other important uses are in the manufacture of brass, solders and other alloys, zinc oxide and other chemicals, zinc strips and sheets, and in die-casting.

Employees of the Broken Hill mining companies receive a lead bonus in addition to ordinary salaries and wages. The average amount of lead bonus per week per employee was $62.21 in 1985-86.

The mine production of silver during recent years is shown in the next table. Approximately half of the silver refined in Australia is subsequently exported; the silver retained is used mainly in photographic materials, electronics and electrical industries, sterlingware and jewellery, brazing alloys, solders, and surgical equipment.

Mine Production of Silver, N.S.W. (kilograms)

Mineral in which contained	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Copper concentrates	12,495	16,791	16,077	14,801	11,946	12,685
Lead concentrates *(a)*	218,847	229,535	236,124	222,076	266,320	275,402
Lead-zinc concentrates *(b)*	9,451	17,606	24,935	19,525	22,992	10,037
Silver concentrates	—	—	—	—	—	167
Silver-lead ore	—	—	388	857	589	642
Zinc concentrates	40,377	43,552	44,688	47,013	53,943	68,651
Other minerals	2,497	24	177	42	37	167
Total silver	**283,667**	**307,508**	**322,390**	**304,314**	**355,827**	**367,751**

(a) Includes "lead-zinc concentrates from slime dumps" in 1980-81. *(b)* Includes "lead-zinc concentrates from slime dumps" since 1981-82. These are included in "lead concentrates" in 1980-81.

Sulphur. There are no known deposits of elemental sulphur in Australia. Australian requirements are met by importing elemental sulphur, from the roasting of locally produced lead and zinc concentrates, or is recovered from oil refinery feedstock. Lead-zinc concentrates produced at Broken Hill are roasted for sulphur recovery at Risdon (zinc concentrate), Port Pirie (lead concentrate), and Cockle Creek (both concentrates). The sulphur dioxide gas given off during the process is used to produce sulphuric acid, most of which is used in making superphosphate.

The mine production of sulphur in New South Wales during recent years is shown in the next table.

Mine Production of Sulphur, N.S.W.
(tonnes)

Mineral in which contained	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Lead concentrates *(a)*	60,565	60,181	57,303	47,096	53,954	47,917
Lead-zinc concentrates *(b)*	2,820	9,946	9,072	8,830	10,347	5,526
Zinc concentrates	172,859	203,829	232,457	164,187	184,380	200,357
Other minerals	—	—	18	90	—	—
Total sulphur	**236,244**	**273,956**	**298,850**	**220,203**	**248,681**	**253,800**

(a) See footnote *(a)* to previous table. *(b)* See footnote *(b)* to previous table.

Australia currently uses imported sulphur as the raw material for about 68 per cent of its sulphuric acid production.

Tin. Tin is restricted in its geographical and geological range and is the rarest of the common industrial metals. The principal tin-producing centres in New South Wales were until 1986 the New England area and Ardlethan (in the south-west).

As a result of the collapse of the International Tin Council market controls in October 1985, there is currently no significant tin mining being undertaken in New South Wales.

The following table shows the tin concentrates produced in New South Wales and the mine production of tin during recent years.

Mine Production of Tin, N.S.W.
(tonnes)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Tin concentrates produced	3,728	3,169	3,214	2,832	2,430	2,479
Tin content of concentrates	2,053	1,668	1,576	1,388	1,306	1,280

Prices of Metals

The trend in London metal prices (quoted in sterling) and home consumption selling prices during recent years are illustrated in the next table.

London and Australian Metal Prices

Metal	*Unit of quantity*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
		London prices *(a)* (sterling value)					
Copper (electrolytic)	pounds per tonne	838.28	871.23	965.79	1,018.46	1,128.54	981.69
Silver	new pence per oz. fine	652.11	439.01	650.30	675.25	551.33	404.89
Lead	pounds per tonne	337.87	361.91	292.15	293.32	336.52	270.26
Zinc (virgin)	pounds per tonne	345.01	451.20	440.37	626.45	674.89	450.20
Tin	pounds per tonne	6,502.84	7,734.74	7,859.09	8,672.90	9,671.71	*(b)*
		Australian prices *(c)*					
Copper (electrolytic)	$ per tonne	1,682.40	1,471.44	1,671.07	1,676.35	1,817.29	2,072.22
Lead	$ per tonne	684.71	655.56	600.00	546.34	529.94	578.49
Zinc (electrolytic)	$ per tonne	734.39	858.09	880.75	1,110.23	1,267.64	1,123.52
Tin	$ per tonne	13,610.22	14,093.08	15,164.70	15,634.06	17,805.82	15,123.51

(a) Spot prices, averages of buyers' and sellers' quotes. The prices are annual averages. *(b)* Price quotation suspended on 24 October 1985. *(c)* Annual average home consumption selling prices. The bases are — copper, ex-smelter, Port Kembla; lead, f.o.r. Port Pirie; zinc, delivered buyers' works, Sydney; tin, ex-works, Sydney, spot price.

Price index numbers summarising the movement in Australian export prices of metals and coal are given in Chapter 19 "External Trade".

Coal

The principal coal producing centres in New South Wales are the Cessnock, Newcastle, and Singleton-Muswellbrook districts of the Hunter Valley (northern district), the Bulli-Wollongong and Burragorang Valley districts (southern district), and the Lithgow district (western district). The black coal produced at these centres is of bituminous grade. The two principal uses are steam-raising and the production of coke. All districts produce steaming coal, but only the southern district can supply low-volatile coking coals. High-volatile coking coal comes predominantly from the northern district.

Organisation and Control of the Coal Mining Industry

Authority to regulate the coal mining industry in New South Wales rests with the Joint Coal Board and the New South Wales Departments of Mineral Resources and of Industrial Relations.

The *Joint Coal Board* was established in 1947, in terms of complementary Coal Industry Acts, 1946 passed by the Commonwealth and New South Wales Parliaments, to regulate and assist the coal mining industry in New South Wales. The body corporate of the Board comprises a Chairman and two other members periodically appointed by the two Governments. On matters of policy the Board is subject to direction by the Prime Minister acting in agreement with the State Premier. The Commonwealth and State Parliaments appropriate funds in equal proportions to meet some of the administrative costs of the Board; these contributions represent 38 percent of the Board's total administrative expenditure in 1985-86. The greater part of the operations of the Board, in terms of cost, are self-financing.

Under Sections of the Acts, the powers of the Joint Coal Board are very wide. The Board has to ensure that the quantity and quality of coal produced in New South Wales are sufficient to meet Australian and export requirements, that coal resources are conserved, developed and worked and that coal produced is used economically and distributed to the best advantage in the public interest. It may give directions as to methods of mining, grading, and marketing, may regulate coal prices and profits in the industry, may regulate the employment, recruitment, and training of mine-workers, and may take measures to promote the health and welfare of workers in the coal industry and the social and economic advancement of coal-mining communities. In the context of the well-being of the community of the Hunter Valley, the Hunter Valley Coal Chain Council was established in 1985, as a tripartite consultative body convened under the chairmanship of the Board. The main objectives of the Council are to secure a competitive position for coal through uninterrupted supply and labour stability, to protect and advance the well-being of those employed in the coal chain and associated industries, to develop the Hunter Valley coal resources leading to the opening of more mines and creation of more jobs.

Since October 1948 colliery proprietors must insure against their liability to pay workers' compensation through an insurance scheme established by the Board and described in the sub-section "Workers" Compensation Insurance' in Chapter 10, "Labour".

Important State Acts relating to the coal mining industry in New South Wales are the Coal Mines Regulation Act, 1982 the Coal Mining Act, 1973 and the Coal Acquisition Act, 1981. The Coal Mines Regulation Act is, in essence, a comprehensive safety code designed to ensure that coal mining operations are carried out with safety. The administration of the Coal Mines Regulation Act is the responsibility of the Department of Industrial Relations. The legislation empowers members of the Inspectorate, comprising mining, electrical and mechanical engineers, to enter mines at any time to inspect the operations to ensure compliance with the Act and Regulations and to conduct investigations into accidents and incidents. The Inspectorate provides engineering advice to other government departments, mine operators and the public generally. The Coal Mining Act, which is administered by the Department of Mineral Resources, sets out provisions regarding the issue of mining titles.

Electricity Commission Coal Mines. The Electricity Commission of N.S.W. (through companies it controls) operates eleven underground mines in the northern, western and southern coalfields (Awaba State, Liddell State, Munmorah State, Wyee State, Huntley, Newstan, Newvale No. 1, Newvale No. 2, Angus Place, Myuna and Cooranbong). Two open cut mines, Swamp Creek and Ravensworth No. 2, are operated by contractors to the Electricity Commission. Raw coal production from all of these collieries amounted to 15.2 million tonnes in 1985-86, and represented 19.6 per cent of the total raw coal production in the State; most of the coal produced is used in the generation of electricity but some of it is exported overseas. The Commission is developing new mines in the Singleton north-west district (to supply the new Bayswater power station), and in the Newcastle and Lithgow areas.

Coal Resources

The latest assessment of black coal resources in New South Wales was made by the Department of Mineral Resources in conjunction with the Joint Coal Board during 1986. Total resources were estimated for coal seams less than 600 metres deep, at 80,056 million tonnes *in situ*. Of this total, 33,436 million tonnes were classified as measured and indicated reserves and 46,620 million tonnes as inferred resources. Measured and indicated reserves comprise coal which would be recoverable from seams about which there is a substantial amount of information available. Inferred resources comprise estimated deposits in coal-bearing lands where drilling has been limited and exploration insufficient to justify inclusion in the first category.

Prior to 1850 the majority of Crown grants made in New South Wales contained a provision reserving minerals, including coal, to the Crown. In 1850 this policy was abandoned and the Crown gave to grantees reserves of coal contained in many Crown grants. By 1884 this decision had been totally reversed so that all Crown grants contained a reservation of minerals to the Crown. During the intervening period many reserves of coal had passed into private ownership. The Coal Acquisition Act, 1981 provided for the vesting of all coal in the Crown from 1 January 1982. The Act provides for compensation to be paid in respect of the loss of private coal rights.

Coal Production

From the inception of coal mining operations to the end of 1985, the recorded production of coal in New South Wales has amounted to 1,748 million tonnes.

The next table shows the output of raw coal in each of the three principal coal mining districts in New South Wales in recent years.

Raw Coal Production *(a)* in New South Wales
('000 tonnes)

Location and type of mine	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85(b)*	*1985-86(b)*
Northern district —						
Underground mines	19,278	20,298	21,910	21,222	21,374	22,011
Open cut mines	15,003	14,746	18,822	21,471	22,872	26,089
Total, all mines	*34,281*	*35,044*	*40,732*	*42,693*	*44,246*	*48,100*
Southern district —						
Underground mines	17,912	17,311	15,640	14,580	14,511	15,343
Western district —						
Underground mines	6,275	7,141	7,911	7,020	6,173	7,564
Open cut mines	81	676	2,014	2,530	5,104	6,179
Total, all mines	*6,356*	*7,817*	*9,924*	*9,550*	*11,277*	*13,743*
New South Wales —						
Underground mines	43,465	44,749	45,462	42,822	42,058	44,918
Open cut mines	15,084	15,423	20,835	24,001	27,976	32,268
Total, all mines	**58,549**	**60,172**	**66,297**	**66,823**	**70,034**	**77,186**

(a) Gross output drawn from the mine prior to treatment in coal washeries for removal of unwanted material, but excluding dirt and chitter dumped or not otherwise used. *(b)* Source: Joint Coal Board.

To meet the marked increase in overseas demand for coal and the increasing requirements of the local electricity generating and steel industries, coal production has risen rapidly since 1963, exceeding for the first time 30 million tonnes in 1968, 50 million tonnes in 1978-79, 60 million tonnes in 1981-82 and 70 million tonnes in 1984-85. In 1979-80 a high level of industrial disputes was responsible for coal production falling below 49 million tonnes. Most of the State's coal output has been won from underground mines. However the proportion of coal won from open cut mines has risen from 4.6 per cent in 1966 to 12.7 per cent in 1971-72, and to 41.8 per cent in 1985-86.

In 1985-86, 62 per cent of the coal produced in New South Wales was obtained from the northern district, 20 per cent from the southern district, and the remaining 18 per cent from the western district. In 1985-86, 59 per cent of the coal exported overseas from New South Wales came from the northern district, 19 per cent from the southern district, and 22 per cent from the western district.

The next table shows, for each coal mining district in New South Wales, the quantities of saleable coal produced in recent years.

Saleable Coal Produced in New South Wales

Year and District	Quantity ('000 tonnes) Saleable raw coal (a)	Washed coal (b)	Total output of saleable coal
1983-84 —			
Northern	16,310	18,828	35,138
Southern	4,491	7,710	12,201
Western	3,478	4,806	8,284
Total, N.S.W.	24,279	31,343	55,623
1984-85 —			
Northern	16,368	20,321	36,690
Southern	5,659	7,036	12,695
Western	2,958	5,911	8,869
Total, N.S.W.	24,985	33,268	58,253
1985-86 —			
Northern	17,833	21,895	39,728
Southern	6,475	7,103	13,578
Western	3,877	6,898	10,775
Total, N.S.W.	28,185	35,896	64,082

(a) Excludes raw coal treated during the year at washeries within the coal mining industry. *(b)* Produced in coal industry washeries. Includes raw coal blended with washed coal in these washeries.

Value of Coal Produced. The next table shows, for each coal mining district of New South Wales, the value of saleable coal produced in recent years.

Value of Saleable Coal Produced in New South Wales ($'000)

						1985-86		
Location	1980-81	1981-82	1982-83	1983-84	1984-85	Saleable raw coal (a)	Washed coal (b)	Total
Northern district	652,643	763,889	995,762	1,039,926	1,203,606	513,781	869,664	1,383,445
Southern district	531,739	584,409	686,241	490,091	517,880	190,585	433,318	623,903
Western district	133,722	189,070	224,967	203,342	227,122	100,682	191,561	292,243
Total, N.S.W.	**1,318,104**	**1,537,367**	**1,906,970**	**1,733,358**	**1,948,608**	**805,047**	**1,494,544**	**2,299,591**

(a) Excludes raw coal treated during the year at washeries within the coal mining industry. *(b)* Produced in coal industry washeries. Includes raw coal blended with washed coal.

Coal Prices

Coal produced in New South Wales is not sold at a standard price. This is due to the many types of coal which have varying inherent qualities. The conditions under which they are mined, and the district where they are mined can also affect the price. In addition, as between mines, there are differences in the type of coal, degree of preparation, and production costs.

The trend in prices of saleable coal produced in the State during recent years, is illustrated by the figures in the following table. These figures represent the average value of saleable coal at the pit-top (or at screens or mine-washeries where these are situated at a distance from the mine). This excludes miners' coal, coal consumed at collieries, and refuse discarded at mine-washeries.

Average Value of Saleable Coal *(a)* At Pit-Top, New South Wales
($ per tonne)

Location	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Northern district	22.36	25.54	29.01	29.60	32.80	34.82
Southern district	36.44	40.03	51.89	40.17	40.79	45.95
Western district	21.36	24.82	25.10	24.55	25.65	27.12
Average, New South Wales	**26.42**	**29.49**	**33.74**	**31.16**	**33.45**	**35.89**

(a) Excludes miners' coal, coal consumed at collieries and refuse discarded at mine washeries. See also footnote *(a)* in the table "Value of Coal Produced".

Employment in Coal Mines

About 75 per cent of all persons engaged in mining and quarrying activities in New South Wales are employed in coal mines. The following table shows the employment in underground and open cut mines in each district of the State in recent years.

Persons Employed *(a)* in Coal Mines, N.S.W.
(*Source*: Joint Coal Board)

Location	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
			Underground mines			
Northern district	8,389	8,980	8,407	8,207	8,202	8,399
Southern district	8,010	7,557	6,373	5,469	5,106	5,142
Western district	1,613	1,762	1,720	1,685	1,697	1,928
Total, N.S.W. —						
Below ground	*12,886*	*12,977*	*11,551*	*10,665*	*10,399*	*10,778*
Above ground	*5,126*	*5,322*	*4,949*	*4,696*	*4,606*	*4,691*
Total N.S.W.	**18,012**	**18,299**	**16,500**	**15,361**	**15,005**	**15,469**
			Open cut mines *(b)*			
Total, N.S.W.	**1,855**	**2,612**	**3,101**	**3,476**	**3,871**	**4,351**
			Total, underground and open cut mines			
Total, N.S.W.	**19,867**	**20,911**	**19,601**	**18,837**	**18,876**	**19,820**

(a) At 30 June. Includes employees on long service leave. *(b)* Persons engaged in open cut coal mining are employed in the northern district, with the exception of a small number in the western district (251 in 1985-86).

Disposal of New South Wales Coal

Particulars of the disposal of New South Wales coal in recent years are given in the next table. The quantity of coal shown as available for consumption in the State in each year represents the total production less the refuse discarded at coal industry washeries (including dump losses) and exports. Stock variations have been taken into account in estimating the actual consumption in the State in each year.

Disposal of New South Wales Coal
(*Source*: Joint Coal Board)
('000 tonnes)

Production and disposal	*1980-81*	*1981-82*	*1982-83(a)*	*1983-84*	*1984-85*	*1985-86*
Total production, raw coal	**58,549**	**60,172**	**66,297**	**66,823**	**70,034**	**77,186**
less						
Mine washery refuse, etc. discarded	8,930	8,201	9,326	11,181	12,922	14,048
Exports —						
Interstate	862	906	747	1,047	1,169	1,225
Overseas	23,712	22,290	29,139	33,427	38,296	39,087
Available for consumption in N.S.W.	**25,045**	**28,775**	**27,085**	**21,168**	**17,647**	**22,826**
Changes in stocks held in N.S.W. —						
Held at mines, in transit etc.	(+)1,832	(+)1,829	(+)2,022	(−)119	(−)2,993	(+)903
Held by consumers	(−)1,046	(+)3,511	(+)3,347	(−)965	(−)1,306	(−)1,628
Actual consumption in N.S.W.	**24,259**	**23,435**	**21,716**	**22,252**	**21,946**	**23,551**

(*a*) Period of 53 weeks.

Coal Consumption and Stocks in New South Wales. Most of the black coal consumed in New South Wales is used in iron, steel, and metallurgical coke works (22 per cent in 1985-86) and in electricity generating stations (74 per cent in 1985-86). The following table shows consumption of black coal in New South Wales, by principal user groups.

Consumers of Coal in New South Wales
(*Source*: Joint Coal Board)
('000 tonnes)

Consumer	*1980-81*	*1981-82*	*1982-83(a)*	*1983-84*	*1984-85*	*1985-86*
Public utilities —						
Electricity	15,063	14,422	15,561	15,973	16,665	18,143
Town gas	24	11	7	4	—	—
Other (incl. hospitals)	107	91	89	86	86	82
Industrial —						
Iron, steel, and metallurgical coke	8,154	7,742	6,030	5,499	5,421	5,342
Cement and cement goods	450	449	378	361	394	417
Food processing	188	192	174	188	185	198
Bricks, tiles, and pottery	48	52	39	34	37	39
Other (excluding small industrial)	288	288	282	285	295	287
Total, public utility and industrial users	**24,322**	**23,247**	**22,560**	**22,430**	**23,083**	**24,508**

(*a*) Period of 53 weeks.

Total *stocks of coal* in New South Wales at the end of June 1986 amounted to 13.4 million tonnes. Of the total, 6.5 million tonnes were held at collieries and 5.8 million tonnes were held by consumers, while the balance was held at ports and sidings, by merchants, or was in transit.

Exports of Coal. The following table shows exports of coal from New South Wales in recent years. Overseas exports of steaming coal from New South Wales surpassed metallurgical coal, coking coal and non-coking coal, in 1982-83 for the first time and, in 1985-86, a total of 24.5 million tonnes of steaming coal was exported overseas. The values of coal exports of N.S.W. origin are given in Chapter 19 "External Trade".

Exports of Coal From New South Wales
(*Source*: Joint Coal Board)
('000 tonnes)

Destination	*1980-81*	*1981-82*	*1982-83(a)*	*1983-84*	*1984-85*	*1985-86*
Interstate	862	906	747	1,047	1,169	1,225
Overseas —						
United Kingdom	1,265	1,385	1,883	1,910	1,610	1,010
Other Europe	2,673	1,476	3,151	3,836	5,128	5,617
India	—	237	437	317	689	753
Japan	15,740	14,978	16,430	18,272	19,328	19,197
Korea, Republic of	2,275	2,471	3,301	4,679	5,310	5,930
Taiwan	1,588	990	1,843	1,993	2,737	3,169
United States of America	46	—	21	26	—	14
Other	125	753	2,073	2,394	3,494	3,398
Total overseas	*23,712*	*22,290*	*29,139*	*33,427*	*38,296*	*39,087*
Total exports	**24,574**	**23,196**	**29,886**	**34,474**	**39,465**	**40,312**

(a) Period of 53 weeks.

Methane

With a view to recovering valuable methane resources presently being vented from operating coal mines, two petroleum mining leases have been granted on the South Coast. Gas turbine generators have been installed at South Coast collieries to utilise methane gas to generate electricity to power the mine and associated operations. Surplus electricity will be sold to Prospect County Council, the local electricity supply authority.

Coal Research

Coal research in Australia is currently concerned with several principal fields of investigation including the feasibility of coal conversion (into oil or gas), developing coal firing as a substitute for liquid fuelling of industrial plants, and technological improvements to mining methods and coal handling.

The Department of Mineral Resources has identified large coal reserves in the West Muswellbrook area, samples of which have shown good potential as a liquefaction feedstock. This area has been set aside as Authorisation 102. Support for coal research, development and demonstration projects is provided under the Commonwealth Government's National Energy Research, Development and Demonstration Program. The Program is developed on the advice of the National Energy Research, Development and Demonstration Council (which is described in the sub-division "Energy Management and Research" later in this Chapter). The Program is administered by the Department of Primary Industries and Energy.

In 1986-87 grants for coal research, development and demonstration projects to the value of $18.8 million were approved by the then Minister for Resources and Energy on the recommendation of Council following the issue of three separate invitations during the year to organisations involved in coal research. Major recipients of grants include private sector organisations, tertiary institutions and Commonwealth and State Government bodies.

Construction Materials

The Hawkesbury formation in the central coastal area provides excellent sandstone for architectural use. The supply is very extensive, and the stone is finely grained, durable, and easily worked.

Deposits of trachyte, granite and marble, which are eminently suitable for use as building and monumental stone, also occur in many districts in New South Wales. Considerable quantities of crushed basalt (blue metal, used for ballast and for making concrete) are quarried in the Kiama and Prospect areas, and several large producers extract gravel and sand from both old river terraces and the present course of the Nepean River, near Penrith.

The following table summarises the recorded production of construction materials in New South Wales in recent years.

Construction Materials Produced in N.S.W.

	1983-84		*1984-85*		*1985-86*	
Material	*tonnes*	*$'000*	*tonnes*	*$'000*	*tonnes*	*$'000*
Dimension stone (building, ornamental, and monumental) *(a)*	21,623	1,949	22,374	2,078	21,215	2,682
Crushed and broken stone *(b)*						
Basalt (incl. dolerite)	5,913,720	55,701	7,046,649	74,961	8,105,814	88,590
Breccia	1,059,652	10,338	1,042,022	12,379	697,871	8,295
Granite	622,374	4,296	818,714	6,325	853,785	7,403
Limestone (incl. marble)	60,003	357	90,480	610	113,466	1,014
Porphyry (incl. rhyolite)	135,726	766	585,474	4,780	572,080	5,142
Sandstone (incl. quartzite)	1,101,862	6,189	1,195,421	6,894	1,242,051	7,304
Other	1,558,996	10,490	1,862,706	14,787	2,233,785	17,225
Gravel *(c)*	4,486,343	47,406	4,665,904	56,749	5,461,197	58,391
Sand *(d)*	8,401,836	45,007	8,989,372	54,952	10,238,715	69,468
Other materials (unprocessed) *(e)*	17,705,657	45,681	19,542,358	52,593	16,872,395	50,719
Total, construction materials	..	**228,180**	..	**287,107**	..	**316,233**

(a) Comprises stone quarried in blocks or slabs. *(b)* Includes fine-crushed rock, and material for prepared road base, but excludes gravel. *(c)* Washed, screened, and/or crushed gravel (including river gravel). *(d)* Comprises "processed" and "unprocessed" sand. Excludes sand for industrial use. *(e)* Includes "unprocessed" materials (ridge gravel, shale, loam, etc.) used for roads and/or for fill.

Other Non-metallic Minerals

Quantity and Value of Non-metallic Minerals

The following table shows details of the major non-metallic minerals (other than coal and construction materials) produced in New South Wales in recent years.

Non-Metallic Minerals *(a)* Produced in N.S.W.

	1983-84		*1984-85*		*1985-86*	
Mineral	*tonnes*	*$'000*	*tonnes*	*$'000*	*tonnes*	*$'000*
Clays —						
Brick clay and shale	2,486,901	10,831	3,117,464	14,488	2,585,903	12,431
Cement clay and shale	151,598	690	90,877	196	81,382	245
Fireclay	25,557	438	28,684	608	76,414	2,567
Kaolin and ball clay	66,868	2,492	43,765	1,628		
Stoneware clay	27,547	146	4,664	25	21,994	127
Terra cotta clay	57,895	398	69,846	485	84,972	593
Other clay, n.e.c.	..	112	3,448	103	12,568	331
Diatomite	6,219	1,022	6,632	1,258	7,014	1,462
Gems —						
Opal *(b)*	..	14,929	..	12,058	..	13,130
Sapphire	..	4,627	..	3,905	..	6,066
Other gems, n.e.c.	..	11	..	11	..	15
Gypsum	28,709	496	40,197	587	46,588	835
Limestone *(c)*	3,023,632	17,199	3,216,790	17,191	3,404,983	18,790
Magnesite	28,279	3,558	45,118	4,562	35,193	2,208
Pyrophyllite	7,189	344	6,689	311	8,684	470
Quartzite *(c)*	83,152	1,152	67,081	954	15,441	230
Sand *(c)*	359,849	3,983	266,464	4,030	389,658	5,429
Sandstone *(c)*	—	—	—	—	25	—
Other non-metallic minerals, n.e.c. *(a)* *(c)*	..	442	..	835	..	1,136
Total non-metallic minerals *(a)*	..	**62,870**	..	**63,235**	..	**66,065**

(a) Other than coal and construction materials. *(b)* Estimated. *(c)* Excludes materials used directly as a building or road material.

Clays. Brick clay and shale is won mainly in the Sydney, East Maitland, Newcastle, Illawarra, and Queanbeyan districts. Terra cotta clay is used mainly in the manufacture of roofing tiles. White kaolin and ball clays are used for refractories, for pottery, and for other industrial purposes (e.g., as a filler in paper manufacture). Most kaolin is produced from the Coorabin-Oakland and the Gulgong-Home Rule-Mudgee areas.

Gems. Significant quantities of opals and sapphires are mined in New South Wales. The most important deposits of precious opal are at Lightning Ridge and White Cliffs. Lightning Ridge, the major producing centre of precious opal in recent years is also the world's major source of black opal, which is recovered for its deep, dark and wide-ranging body, colour and fire. Sapphires are obtained in the Glen Innes and Inverell districts of the State. Most of the sapphires mined are exported as uncut stones to South East Asian countries, principally Thailand.

Limestone. Immense reserves of limestone are distributed widely throughout New South Wales, but the commercial value of the deposits depends mainly on their accessibility and proximity to market. The main producing centres are Portland, Marulan and Kandos.

EXPLORATION FOR MINERALS IN NEW SOUTH WALES

Petroleum Exploration

Statistics relating to petroleum exploration in New South Wales are compiled by the Bureau of Mineral Resources and relate to years ended 31 December. There were 8,317 metres drilled in private onshore exploration in New South Wales in 1985.

Other Mineral Exploration

The statistics of exploration for minerals other than petroleum and oil shale are derived from the annual Mineral Exploration Census conducted by the Australian Bureau of Statistics jointly with the N.S.W. Department of Mineral Resources and relate to years ended 30 June.

Mineral exploration consists of the search for mineral deposits, the appraisal of newly-found and known deposits of minerals (including those being worked) by geological, geophysical, geochemical, drilling and other methods. Excluded are mine development activities carried out primarily for the purpose of commencing or extending mining or quarrying operations, which are included in the scope of the annual Mining Census, the results of which are published earlier in this chapter.

The data obtained in the Mineral Exploration Census are divided into the following categories:

Private exploration on production leases. This relates to exploration carried out *on the production lease* by privately operated mines currently producing or under development for production of minerals. This also includes particulars of exploration within their production leases by business undertakings operated by State governmental authorities. Mines included in this section of the mineral exploration collection are also included in the annual Mining Census.

Private exploration other than on production leases. This relates to exploration carried out on areas covered by exploration licences and other forms of prospecting title. It also includes exploration for minerals which is not directly connected with areas under lease, licence, etc., including general surveys, aerial surveys, report writing, map preparation, and other off-site activities not directly attributable to particular lease or licence areas.

Exploration by Government. This relates to exploration for minerals carried out by N.S.W. Government bodies. In addition, some government exploration expenditure is incurred by the Bureau of Mineral Resources, but separate figures for New South Wales are not available.

The next table shows the number of metres drilled in private exploration in the State during recent years.

Private Mineral Exploration (Other than for Petroleum and Oil Shale) in N.S.W.: Metres Drilled
('000 metres)

Type of exploration	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
On production leases—						
Core drilling *(a)*	39	41	29	24	31	30
Non-core drilling *(b)*	47	52	34	49	67	85
Total	*86*	*93*	*63*	*72*	*97*	*115*
On other areas—						
Core drilling *(a)*	183	158	113	100	79	68
Non-core drilling *(b)*	389	479	292	191	185	194
Total	*572*	*637*	*405*	*291*	*263*	*262*
Total private exploration—						
Core drilling *(a)*	221	199	142	124	109	98
Non-core drilling *(b)*	436	531	326	240	252	279
Total private exploration	**658**	**730**	**468**	**364**	**361**	**377**

(a) Diamond drilling, or any type of drilling in which cores are taken. *(b)* Alluvial, percussion, and other drilling in which cores are not taken.

The following table shows private and government expenditure on mineral exploration (other than for petroleum and oil shale) during recent years.

Private and Government Expenditure on Mineral Exploration (Other than for Petroleum and Oil Shale), N.S.W.
($'000)

Type of exploration	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Private exploration						
On production leases—						
On drilling	4,591	5,458	3,498	4,354	4,768	5,063
Other *(b)*	2,660	3,104	2,710	2,638	3,131	5,287
Total	*7,251*	*8,562*	*6,208*	*6,992*	*7,899*	*10,350*
Other—						
On drilling	16,339	20,846	13,326	11,049	9,824	9,200
Other *(b)*	45,569	60,343	46,179	37,522	31,740	32,243
Total	*61,908*	*81,189*	*59,505*	*48,571*	*41,564*	*41,443*
Total private exploration—						
On drilling	20,930	26,303	16,824	15,403	14,591	14,263
Other *(b)*	48,229	63,448	48,889	40,160	34,873	37,530
Total private exploration	**69,159**	**89,751**	**65,713**	**55,563**	**49,464**	**51,793**
Government exploration *(a)*						
On drilling	2,624	5,523	3,542	1,218	991	918
Other *(b)*	5,613	2,342	4,958	4,941	4,654	3,712
Total government exploration	**8,237**	**7,865**	**8,500**	**6,159**	**5,645**	**4,630**
Total expenditure on exploration						
On drilling	23,554	31,826	20,366	16,621	15,582	15,181
Other *(b)*	53,842	65,790	53,847	45,102	39,526	41,242
Total exploration	**77,396**	**97,616**	**74,213**	**61,722**	**55,108**	**56,423**

(a) Comprises expenditure by N.S.W. Government bodies but excludes expenditure by Bureau of Mineral Resources. *(b)* Includes geological, geophysical, geochemical, etc. exploration, including construction of shafts, adits, etc. From 1983-84 government expenditure on exploration excludes activities (e.g. broad geological and geophysical studies, preparation of maps, etc.) which are considered to be outside the scope of the Census Collection.

ADMINISTRATION OF MINING LAWS IN NEW SOUTH WALES

The general supervision of the mining industry in the State and the administration of the relevant enactments are shared by the Department of Mineral Resources, the Department of Industrial Relations and the Joint Coal Board.

State Government Mining Royalties

Royalties are payable to the Crown in respect of the minerals won from mining leases of Crown lands and of private lands where the minerals are reserved to the Crown. In the case of private lands held without reservation of minerals to the Crown, a royalty is collected by the Department of Mineral Resources on behalf of the owner and a small collection fee is charged. The royalty on gold is payable to the Crown in all cases. From 1 January 1982, ownership of all coal has been vested in the Crown under the Coal Acquisition Act, 1981. As a result, all royalty on coal is now payable to the Crown.

Particulars of royalty and other mining revenue collected during recent years are shown in the next table. The fluctuations in the amount of royalty collected in respect of silver-lead-zinc minerals reflect the variations in overseas prices obtained for the minerals.

State Government Revenue from Mining *(a)*, N.S.W.
($'000)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Royalty on minerals—						
Coal	51,785	80,400	101,544	102,517	107,270	116,045
Silver-lead-zinc	68,006	9,653	1,056	5,382	467	135
Other minerals	5,648	3,435	3,639	2,890	2,573	3,646
Total royalty	*125,439*	*93,489*	*106,239*	*110,789*	*110,310*	*119,826*
Less						
Royalty repayments *(b)*	10,038	7,090	2,183	1,000	1,116	1,257
Net royalty	115,401	86,399	104,056	109,789	109,194	118,569
Mining leases	996	1,418	2,505	2,876	2,887	2,240
Other receipts	589	378	315	572	2,821	2,890
Total net receipts	**116,986**	**88,195**	**106,876**	**113,237**	**114,902**	**123,699**

(a) Revenue represents amounts received during the year rather than amounts receivable. *(b)* Royalty in regard to mining on private lands held without reservation of minerals to the Crown is collected by the Department of Mineral Resources on behalf of the owner.

State Government Control of Safety and Inspection of Mines

The inspection of mines for the safeguarding of the health and safety of miners is conducted by the officers of the Department of Industrial Relations in terms of the Coal Mines Regulation Act, 1982 (which applies to coal and oil shale mines), and the Mines Inspection Act, 1901 (which applies to all other mines including quarries, exploration activities and dredging operations).

Further details concerning mine safety are contained in the 1986 issue of the N.S.W. Year Book (pages 486-487).

ENERGY

Sources of energy utilised in New South Wales in the 19th century included colza (rapeseed oil), whale oil, tallow, oil shale (which was mined in New South Wales until 1952), horses, cattle, wind, hydraulic mechanisms, gas, coal and wood. Most of these sources of power were replaced when new modes of transport were developed, mechanisation of industry and agriculture occurred and domestic consumption patterns altered. Initially, the increased demand was met by coal and electricity but, in the last few decades, a major portion of the increased consumption of energy has been of (petroleum) oil. However, in the late 1970's the trend towards oil in industrial plants was reversed with an increase in electricity, coal, and later, natural gas usage. Improvements in coal combustion technology and pollution control, the construction of a natural gas pipeline from Moomba in South Australia to Sydney and certain other regional centres in New South Wales (see the section on Natural Gas), and the rising cost of oil, have been contributing factors to these recent changes.

PRIMARY SOURCES OF ENERGY

The six primary sources of energy utilised in New South Wales are oil, natural gas, coal, water for hydro-electricity production, bagasse (a burnable waste product of the sugar industry), and wood. The Department of Energy, which is described later in this subdivision, estimates the production of energy from primary sources and its consumption by end-users in the State annually. The following tables are drawn from the Department's studies.

The next table shows the primary sources of energy consumed in New South Wales. All of the crude oil and natural gas used in the State is imported from overseas or interstate but all coal is mined locally.

Primary Sources of Energy for use in N.S.W. *(a)*, N.S.W.
(*Source*: Department of Energy)

	Petajoule PJ (b)			*Proportion of total energy (per cent)*		
Energy source	*1982-83*	*1983-84*	*1984-85*	*1982-83*	*1983-84*	*1984-85*
Oil *(c)*						
Crude						
Interstate	203	247	254	10	11	11
Overseas	94	76	99	4	3	4
Refined						
Interstate	48	34	25	2	2	1
Overseas	32	34	21	2	2	1
Total oil	*377*	*391*	*399*	*18*	*18*	*17*
Natural gas	80	86	88	4	4	4
Coal	1,648	1,668	1,756	77	77	77
Water power *(d)*	9	9	14	—	—	1
Bagasse and wood	16	16	16	1	1	1
Total, all sources	**2,130**	**2,170**	**2,273**	**100**	**100**	**100**

(a) Adjusted for stock movements. *(b)* Quantities of individual energy sources have been converted to a petajoule equivalent. *(c)* Oil usage figures refer to the State Marketing Area which includes the A.C.T. but excludes Murwillumbah, Broken Hill/Wilcannia and Riverina districts. *(d)* Used for hydro-electricity production.

CONSUMPTION OF ENERGY

In 1984-85, the transport, commercial, industrial, and domestic sectors of New South Wales used 38 per cent, 5 per cent, 47 per cent, and 10 per cent respectively of the energy available for end use.

In 1984-85, oil, gas, coal, and electricity supplied 47 per cent, 11 per cent, 22 per cent, and 18 per cent respectively of end use energy requirements in New South Wales. A total of 765 PJ of energy was available for consumption.

Consumption of energy in New South Wales in 1984-85 by the consumer sector, expressed as a proportion of the energy source used and as a proportion of consumer usage, is shown in the following table.

Consumption of Energy in N.S.W., 1984-85
(*Source*: Department of Energy)

Consumer sector	*Energy source* *Oil (a)*	*Gas*	*Coal*	*Electricity*	*Bagasse and wood*	*All sources*
	Proportion of energy source used — expressed as a percentage					
Transport	81	—	—	2	—	38
Commercial	3	8	2	16	—	5
Industrial	15	82	98	44	44	47
Domestic	1	10	—	38	56	10
All sectors	***100***	***100***	***100***	***100***	***100***	***100***
	Proportion of sector's usage — expressed as a percentage					
Transport	99	—	—	1	—	***100***
Commercial	22	17	7	54	—	***100***
Industrial	15	19	47	17	2	***100***
Domestic	7	11	1	69	12	***100***
All sectors	47	11	22	18	2	***100***

(a) See footnote *(a)* to the next table.

Consumption of Petroleum Products

In the absence of actual consumption figures, a guide to the level of consumption of petroleum products is provided by the sales of these products. Generally, the consumption of petroleum fuels in industry has declined since 1978; fuels previously used in process heating applications have largely been replaced by natural gas.

The following table shows sales of petroleum products in the New South Wales State Marketing Area in recent years. Total sales for Australia in 1986-87 was 34,159 megalitres.

Sales of Petroleum Products, N.S.W.*(a)*
(Source: Department of Primary Industries and Energy)
(megalitres)

Product	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
Auto diesel oil	2,189	1,878	2,053	2,164	2,248	2,337
Aviation gasoline	28	26	27	26	24	24
Aviation turbine fuel	898	817	883	974	997	1,003
Fuel oil *(b)*	682	630	610	545	483	332
Heating oil	99	90	81	80	66	62
Industrial diesel	256	152	77	64	41	29
Lighting kerosene	36	32	29	28	22	19
L.P.G.	321	241	r382	444	360	324
Motor spirit	5,052	4,841	5,074	5,068	5,175	5,192
Power kerosene	3	3	3	2	2	2
Other products *(c)*	886	781	699	701	491	451
Total petroleum products	**10,450**	**9,491**	**9,918**	**10,096**	**9,909**	**9,775**

(a) Figures are based on oil industry sales in the N.S.W. State Marketing Area which includes A.C.T. but excludes the Murwillumbah, Broken Hill/Wilcannia, and Riverina districts. *(b)* Excludes refinery fuel. *(c)* Lubricants, bitumen and other petroleum products.

ENERGY MANAGEMENT AND RESEARCH

The Australian Nuclear Science and Technology Organisation (ANSTO) has been established under the Australian Nuclear Science and Technology Organisation Act 1987. ANSTO, formerly the Australian Atomic Energy Commission, operates a Research Establishment at Lucas Heights near Sydney. Its functions, as set out in the Act, are exclusively related to the research and development of peaceful uses of nuclear science and technology and the marketing of nuclear products other than weapons or other explosive devices. Its research and development programs are carried out under six main headings: environment, waste management, radioisotopes and radiation in medicine and in industry, nuclear technology and underlying research. Commercial operations include the production and sale of radioisotopes (principally for nuclear medicine) and the irradiation of silicon for the electronics industry.

The National Energy Research, Development and Demonstration Council (NERDDC) was established in 1978. It advises the Minister for Primary Industries and Energy on the development and co-ordination of the National Energy Research, Development and Demonstration (NERD&D) Program. NERDDC comprises 12 external advisors and provides technical advice on the merit of individual proposals for support grants covering a wide field of energy technologies. Council is assisted in its assessment of proposals by six Technical Standing Committees. Assessments are made against a framework of priorities which are reviewed annually by NERDDC and the Department before being submitted for ministerial approval. The NERD&D Program addresses a wide field of energy technologies and is funded from departmental appropriations and a five cents per tonne levy on coal production, the latter being fully allocated to coal related projects. During 1986-87 an amount of $26.6m was approved for projects funded by the Program. This brought the total sum committed to $175m since the Program was established.

The *Department of Energy* is a New South Wales Government department created on 1 July 1987 under the provisions of the Energy administration Act 1987. It continues the activities of its predecessor, the Energy Authority of New South Wales, and has added roles and functions in respect of the electricity supply and distribution authorities. It advises the Minister for Energy on the location, development, extraction, transportation, distribution, conservation and utilisation of energy resources in the State. As well as policy and regulatory roles, the Department participates in and encourages research and development relating to existing and new sources of energy and energy substitution, and the evaluation of energy related technology, and administers a number of social equity and energy management programs.

The Department is also responsible for promoting and regulating the co-ordination, development and distribution of electricity supply throughout the State. It does not generate or distribute electricity, but regulates the extension and interconnection of supply systems outside the area of operations of the Electricity Commission of New South Wales. Other major functions include the provision of advice to electricity distributing authorities on such matters as the framing and regulating of retail electricity tariffs, the implementation of safety regulations relating to consumers' installations, the licensing of electrical mechanics and the registration of electrical contractors.

The *Electricity Commission of New South Wales* is principally engaged in the generation of electricity and its bulk transmission to distributing authorities for retail distribution, and to a small number of large consumers in the State. Further information on the activities of the Commission are given later in this chapter.

The *Joint Coal Board* is responsible for ensuring that coal production in New South Wales satisfies Australian and trade requirements and that the coal resources of the State are conserved, developed, worked, and used to the best advantage in the public interest. More details on the Board are given in the division "Mining" earlier in this chapter.

SYSTEM OF STATISTICS FOR ELECTRICITY AND GAS INDUSTRIES

Since the introduction of the system of integrated economic censuses in 1968-69, Censuses of Electricity and Gas Establishments have been conducted in respect of the years 1968-69, 1969-70, 1971-72, 1972-73, 1974-75, 1977-78, and each year from 1979-80 to 1984-85.

The statistical reporting units, the Australian Standard Industrial Classification (ASIC), and the standardised data items used in the conduct of the electricity and gas censuses and other integrated economic censuses and surveys from 1968-69 are described in Appendix B, "Integrated Economic Censuses and Surveys" in the 1985 issue of the N.S.W. Year Book.

ELECTRICITY GENERATION AND DISTRIBUTION

The electricity generation and distribution industry, as defined in the Australian Standard Industrial Classification, covers all establishments engaged mainly in the generation, transmission, or distribution of electricity.

Summary statistics of the operations of establishments engaged mainly in the electricity generation and distribution industry during recent years are given in the following table.

Electricity Establishments, N.S.W.: Summary of Operations

Particulars	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*
	Number					
Establishments operating at 30 June	42	34	34	34	33	34
Persons employed at end of June *(a)*—						
Males	26,626	26,641	28,206	27,829	27,256	27,222
Females	2,648	2,726	2,953	2,818	2,749	2,807
Persons	*29,274*	*29,367*	*31,159*	*30,647*	*30,005*	*30,029*
	Value ($'000)					
Wages and salaries paid	382,101	457,209	567,900	661,855	663,529	711,519
Sales, transfers out, and other operating revenue	1,961,210	2,307,272	2,874,142	3,732,051	4,110,187	4,374,719
Stocks at —						
Beginning of year	137,323	124,037	164,958	281,875	374,301	358,846
End of year	129,754	164,547	281,200	371,583	357,695	313,057
Purchases, transfers in, and selected expenses	988,228	1,132,551	1,586,617	2,097,975	2,216,881	2,494,472
Value added *(b)*	965,414	1,215,231	1,403,766	1,723,785	1,876,700	1,834,457
Fixed capital expenditure *(c)*	378,219	646,808	477,820	920,384	1,067,926	979,772

(a) Includes own employees engaged on new construction. *(b)* Represents sales, transfers out, bounties and subsidies on production, all other operating income, and capital work done for own use, *plus* increase (or *less* decrease) in the value of stocks, *less* purchases, transfers in, and selected expenses. *(c)* Outlay on fixed tangible assets *less* disposals.

Electricity generated in New South Wales amounted to 28,800 million kWh in 1974-75 and 42,712 million kWh in 1986-87.

About 97 per cent of the State's electrical energy is produced by thermal power stations using coal for the generation of electricity, whilst the remainder is provided from hydro-electric power stations, principally the Snowy Mountains Scheme.

The effective installed capacity of generating plant of public electricity suppliers (excluding the Snowy Mountains Hydro-electric Authority) at 30 June 1986 was 11,520 MW comprising hydro 360 MW, steam 10,810 MW, internal combustion 31 MW, and gas turbine 319 MW. As the principal producing centres for coal suitable for electricity generation are within a 200 kilometre radius of Sydney, most of the electricity generating plants are located in this area.

Authorities engaged in retail distribution of electricity receive bulk supplies through an Interconnected System operated by the Electricity Commission of New South Wales. At 31 December 1985, in addition to the Commission there were 26 separate authorities engaged in the supply of electricity in N.S.W., these being 23 county councils, one city and one shire council, and one private franchise holder. At 31 December 1985, these authorities supplied 2,230,031 consumers (including 1,996,936 residential and 232,372 commercial and industrial consumers). The largest distributing authority in the State is the Sydney County Council, which at 31 December 1985 supplied 983,837 consumers (including 887,932 residential, 79,701 commercial and 16,168 industrial consumers) in 32 metropolitan local government areas. For details on electricity prices see the chapter "Prices" and for details on electricity trading undertakings of municipal, shire, and county councils in New South Wales, see the division "Local Government Finance" in Chapter 22 "Public Finance".

Electricity Commission of New South Wales

The Electricity Commission of New South Wales is the statutory authority responsible for the generation and bulk transmission of electricity in New South Wales. Constituted by the Electricity Commission Act 1950 and restructured by the Electricity Commission Amendment Act 1982, the Commission is subject to the control and direction of the Minister for Energy, and comprises a general manager reporting to a board of full and part-time Commissioners.

On its establishment, the Commission took over the State's major electricity generation and bulk distribution facilities. Since then it has managed the construction and operation of several new power stations (mainly thermal stations on the coal fields), high-tension transmission lines and major sub-stations throughout the State. It currently supplies electricity to County Councils and other local government authorities (which retail it to domestic and commercial users), large industrial consumers such as aluminium smelting companies, and the State Rail Authority. It also has a distribution link with the State Electricity Commission of Victoria — see the paragraph on the Snowy Mountains Scheme below.

Snowy Mountains Hydro-electric Scheme

The Snowy Mountains Scheme, which was begun in 1949 and completed in 1974, is a hydro-electric and irrigation project. The Commonwealth Parliament established the Snowy Mountains Hydro-electric Authority to implement and maintain the Scheme. Water, diverted from streams and rivers rising on the eastern side of the Great Dividing Range at high elevation, is used, in the course of its diversion by means of aqueducts, tunnels, and shafts, to operate power stations with a generating capacity of 3.7 million kW. Details of the construction and operation of the Scheme are shown in the New South Wales Year Book No. 63.

Power from the generating stations in the Snowy Scheme is fed into the New South Wales and Victorian interconnected systems at central switching stations erected near the perimeter of the Snowy Mountains area. Transmission is at 330,000 volts. In normal circumstances, the power is used to meet the peak load needs of the States.

A small proportion of the electricity produced by the Scheme is used to meet the requirements of the Australian Capital Territory, and the balance is shared between the two States in the proportion of two-thirds to New South Wales and one-third to Victoria. The electricity is purchased by the States at its cost of production (which includes the capital cost of the Scheme amortised over 70 years). No charge is made for the irrigation water provided by the Scheme. Total expenditure on the Scheme amounted to $810m.

GAS PRODUCTION AND DISTRIBUTION

The gas production and distribution industry, as defined in the Australian Standard Industrial Classification, covers all establishments engaged mainly in the manufacture of town gas from coal or petroleum, or in the distribution of manufactured town gas, natural gas or liquefied petroleum gas through mains reticulation systems. Natural gas absorption plants and establishments engaged mainly in operating pipelines for the transport of natural gas are excluded from the industry.

Summary statistics of the operations of establishments engaged mainly in the gas production and distribution industry during recent years are given in the following table.

Gas Establishments, N.S.W.: Summary of Operations

Particulars	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*
	Number					
Establishments operating at 30 June	22	25	21	22	20	20
Persons employed at end of June *(a)*—						
Males	2,498	2,497	2,562	2,501	2,406	2,213
Females	576	589	612	568	574	580
Persons	*3,074*	*3,086*	*3,174*	*3,069*	*2,980*	*2,793*
	Value ($'000)					
Wages and salaries paid	40,746	46,987	47,947	54,086	57,033	55,869
Sales, transfers out, and other operating revenue	141,797	192,079	259,764	322,761	388,607	431,713
Stocks at —						
Beginning of year	13,763	17,985	12,667	24,632	34,478	30,753
End of year	17,858	18,511	16,158	34,577	31,005	25,045
Purchases, transfers in, and selected expenses	65,746	99,539	141,687	194,385	232,963	271,644
Value added *(b)*	80,147	93,066	121,567	138,322	152,172	154,361
Fixed capital expenditure *(c)*	16,591	14,851	30,300	24,070	19,024	37,001

(a) Includes own employees engaged on new construction. *(b)* Represents sales, transfers out, bounties and subsidies on production, all other operating income, and capital work done for own use, plus increase (or less decrease) in the value of stocks, less purchases, transfers in, and selected expenses. *(c)* Outlay on fixed tangible assets less disposals.

Liquefied natural gas (LNG) was made available to Sydney consumers with the completion of an overland supply pipeline from the Moomba field in South Australia in 1976. During the following five years, lateral pipelines were completed to Wollongong (1978), Bowral-Mittagong (1979), Goulburn (1980), and Canberra, Queanbeyan and Wagga Wagga (1981). A major trunk line between Sydney and Newcastle was completed in 1982.

With the connection of natural gas pipelines into existing reticulation systems, the use of manufactured (usually coal) or petroleum gas is gradually being superseded in the main population centres of the State. By the end of 1986, more than half the Sydney homes with reticulated gas supply had been converted to the direct use of natural gas, with this program being scheduled for completion in 1991. Sydney users of direct natural gas by this time totalled about 237,000 residential and 141,000 other (mainly commercial/industrial).

A small number of regional centres not yet connected to the natural gas distribution network still retain their own manufactured gas production and reticulation systems. These systems are operated either by the local government authority or by commercial interests. However they together account for less than 3 per cent of total reticulated gas sales in New South Wales.

The total amount of gas (all types) available for issue through mains in New South Wales was 81,725 terajoules in 1984-85, 92,532 terajoules in 1985-86 and 93,689 terajoules in 1986-87.

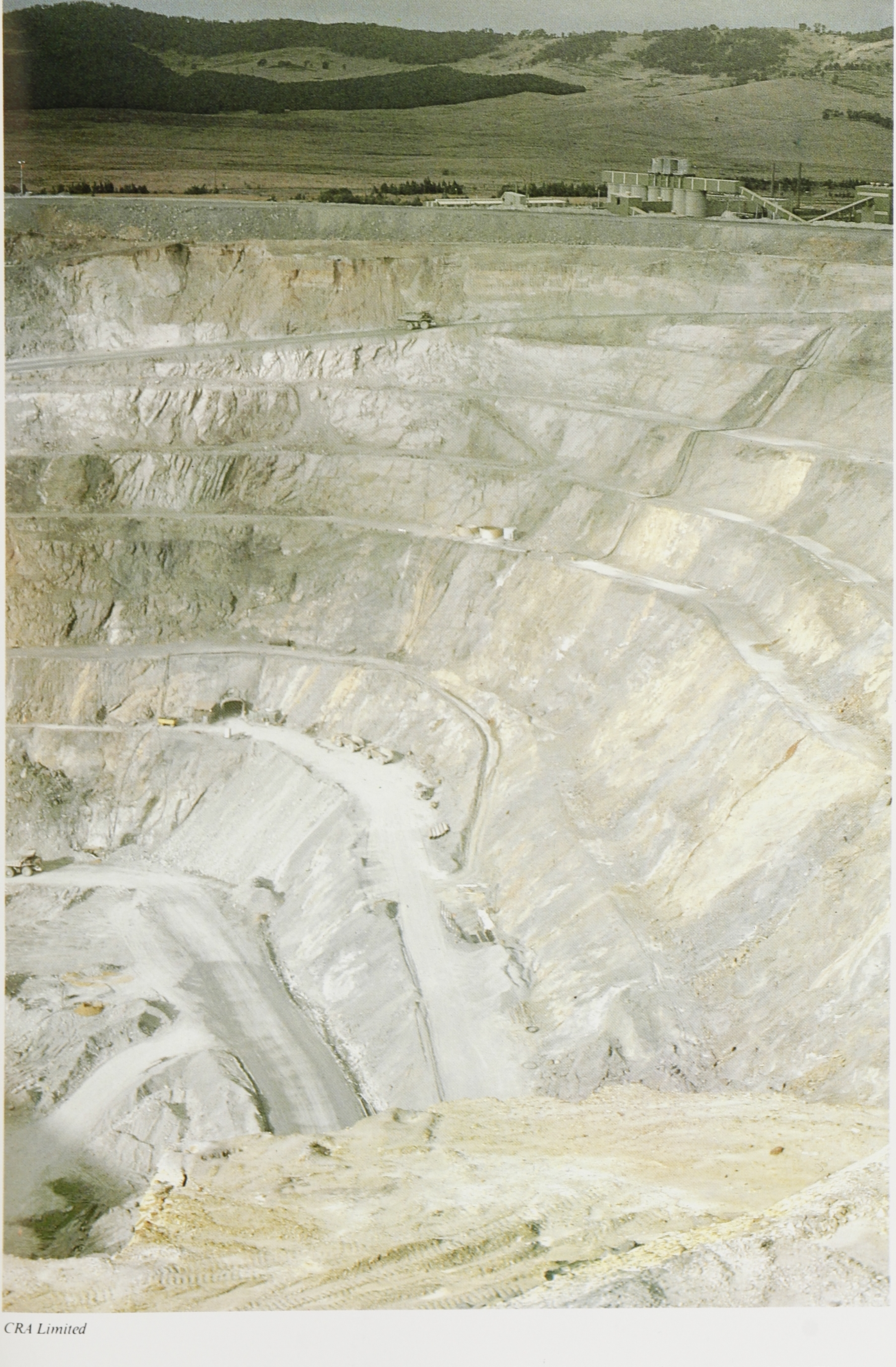
Work still in the development stages includes extraction of methane gas from coal seams South of Sydney and the investigation of potential bulk natural gas storage facilities adjacent to the main population centres.

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Directory of A.B.S. Energy Statistics* (Catalogue No. 1107.0); *Census of Mining Establishments, Details of Operations by Industry Class, Australia* (Catalogue No. 8402.0); *Mineral Production, Australia* (8405.0); *Mineral Exploration, Australia* (8407.0).

A.B.S.Publications (N.S.W. Office): *Pocket Year Book of New South Wales* (1302.1); *Monthly Summary of Statistics* (1305.1); *Mining, New South Wales* (8401.1).

Other Publications: Annual Report and *Australian Energy Statistics* of the Department of Resources and Energy. Annual Reports of Australian Atomic Energy Commission; the Pipeline Authority; the National Energy Research, Development and Demonstration Council; the Snowy Mountains Hydro-electric Authority; the Snowy Mountains Council; Joint Coal Board; Energy Authority of New South Wales; Electricity Commission of New South Wales; New South Wales Department of Mineral Resources and the Sydney County Council; *Major Energy Statistics,* Department of Resources and Energy; *Energy Policy Summary and Background Paper*, Energy Authority of New South Wales; *Engineering and Financial Statistics of Electricity Supply Authorities in New South Wales*, Energy Authority of New South Wales; *New South Wales Gas Works Undertakings*, Energy Authority of New South Wales; *Black Coal in Australia*, Joint Coal Board; *Australian Mineral Industry Annual Review*, Bureau of Mineral Resources, Geology and Geophysics; *Metal and Mineral Prices; Mine Production of Principal Metals, Sulphur, and Coal; and Mineral Production*, N.S.W. Department of Mineral Resources.

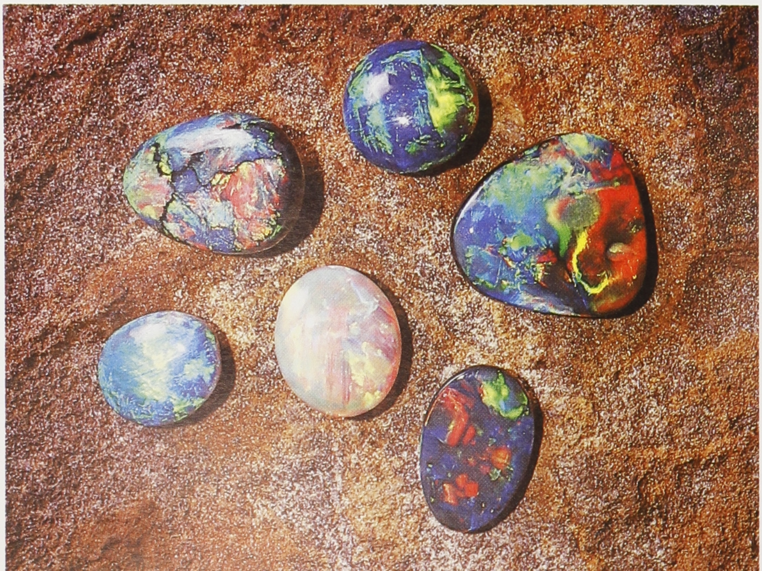


CRA Limited

The Woodlawn copper-lead-zinc-silver deposits, 50 km south of Goulburn were discovered in 1969. The photo shows the open pit mine where a decline drive is being pushed underground as part of a feasibility study for a new mine. If studies indicate that a viable underground mine can be established, the life of this mine could be extended by about eight years after the open pit reserves are mined out. Photograph by David Moore.

Opals — Australia is one of the major opal-producing countries in the world, and significant quantities of opals are mined in N.S.W. The most important deposits of precious opal are at Lightning Ridge and White Cliffs. The gems from Lightning Ridge, the major producing centre in recent years, are remarkable for colour and brilliance, and the valuable black opal has been mined almost solely from this field.

N.S.W. Department of Mineral Resources. Photographer David Barnes

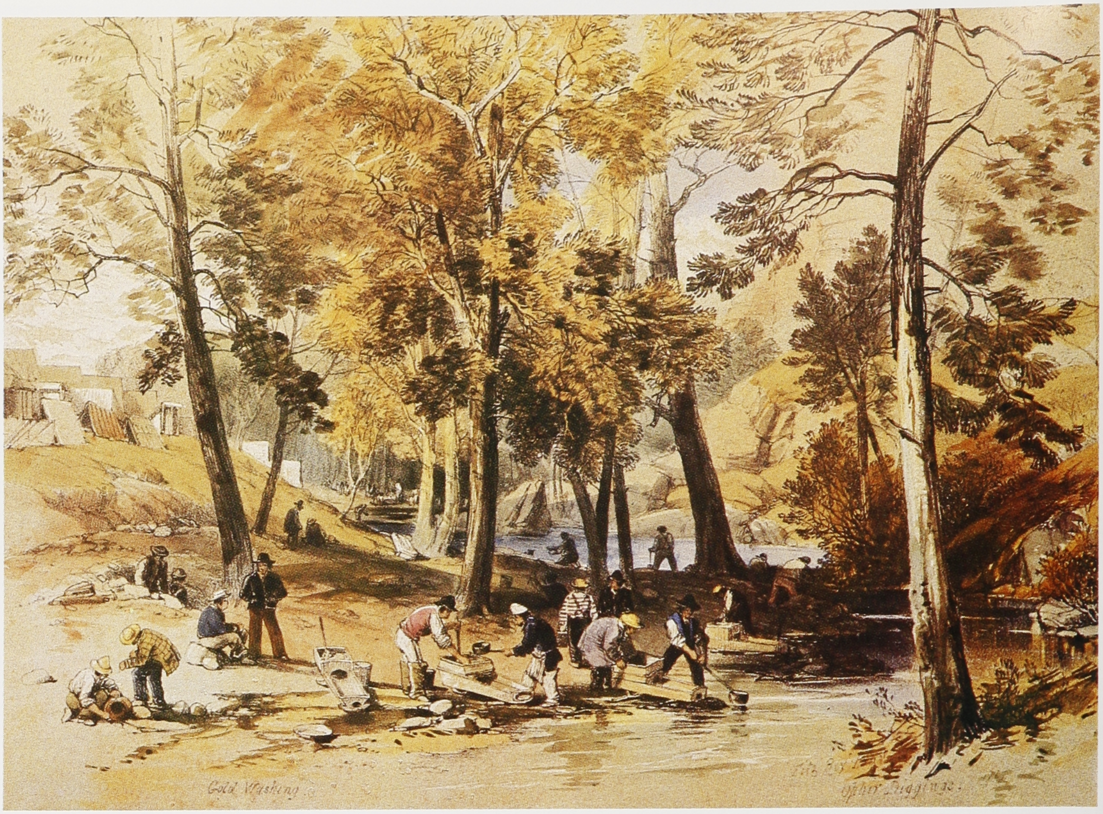


N.S.W. Department of Mineral Resources. Photographer David Barnes

Sapphires — The recorded value of sapphire production has increased sharply in recent years, which is mainly due to increased mining in the Glen Innes and Inverell districts of N.S.W. Most of the sapphires are exported as uncut stones to South East Asian countries. *Above left:* The soil and non-sapphire bearing rock (overburden), which is 1-6 metres thick, is removed to expose the sapphire bearing wash which is 1-2 metres thick. *Above right:* A buyer sorts and weighs the parcel of sapphires he has just purchased.

Below: Cement-making plant at Kandos, 1980s. In the early decades of the Colony, convicts collected and burnt sea shells to obtain limestone for building purposes. Later, cement was imported from England in large quantities. However, limestone was later found throughout the State, and especially since the 1890's and early 1900's, large quantities have been mined. The main producing centres in the 1980's are at Portland, Marulan and Kandos. More than half of the limestone produced in the State is used in cement manufacture. Its other major use is as a flux in the iron and steel industry.

Department of Mineral Resources



Mitchell Library, State Library of New South Wales

Gold Washing, Fitzroy Bar, Ophir Diggings by George French Angas. The discovery of gold at Ophir by Edward Hargraves in 1851 was the first discovery to be announced by the Government. This had a profound effect on society, as men left their employment in pursuit of their fortune in gold. In this painting, Angas captures the scene at Summer Hill Creek, below Lewis Ponds, the site of Australia's first gold rush.

Panning for Gold by S.T. Gill. The gold-rush reached its height in the 1850s, and during this time of alluvial mining, simple methods of washing, panning and cradling were used. Gill had a keen sense of detail and his drawings carefully record all the apparatus of gold digging: barrow, cradle, dishes, windlass, huts and tents.

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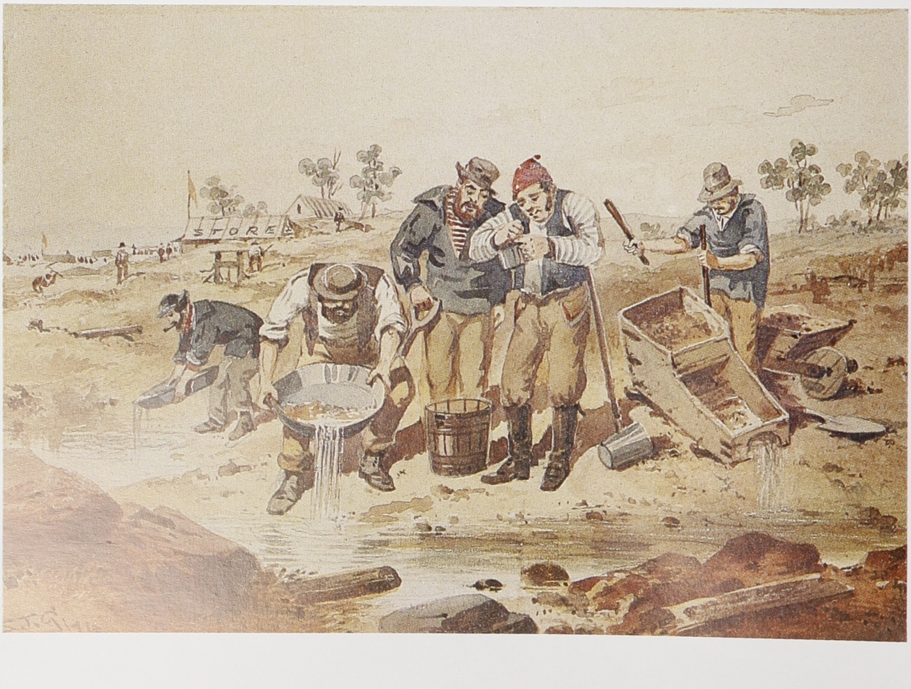

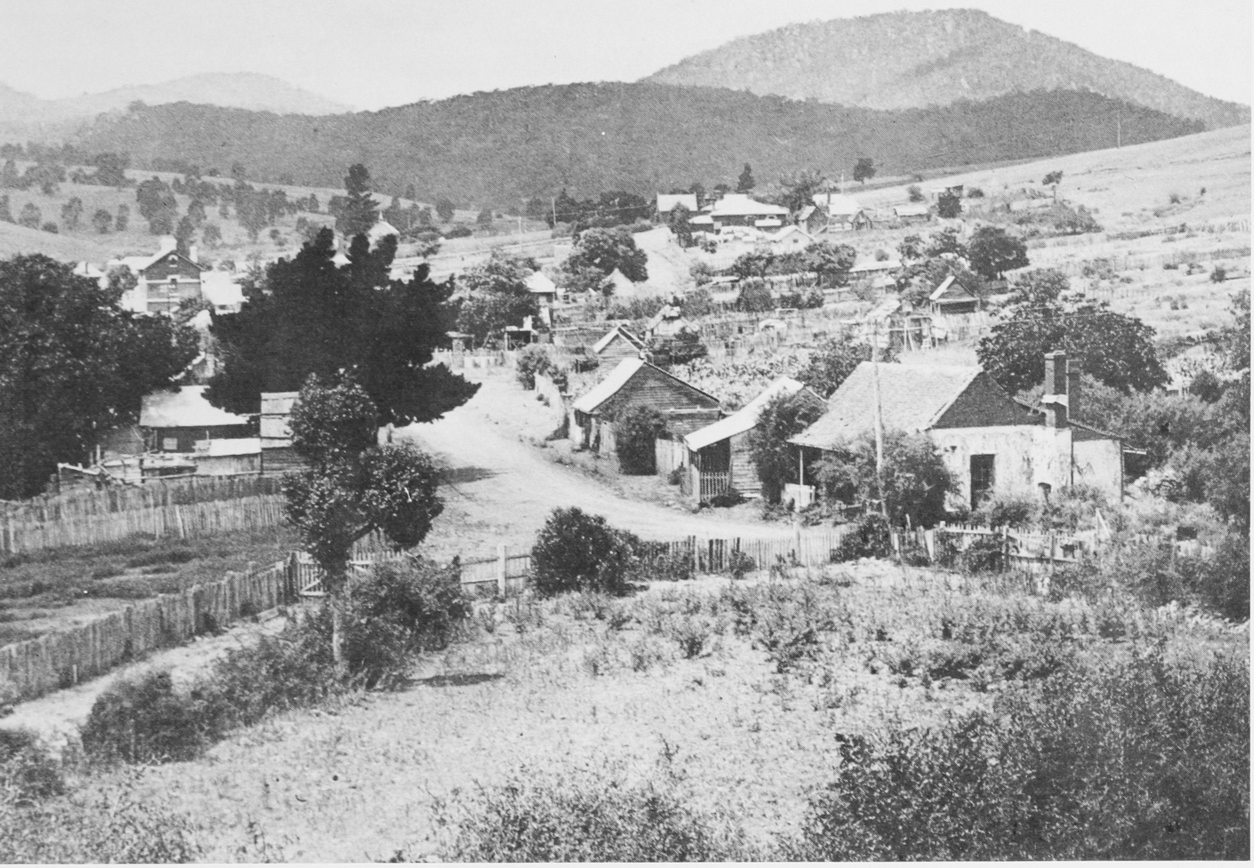

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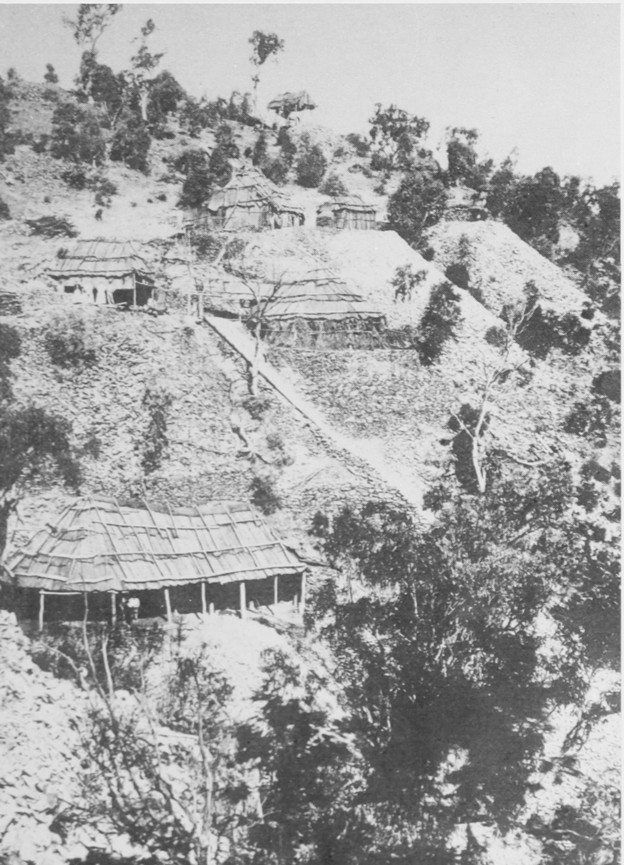


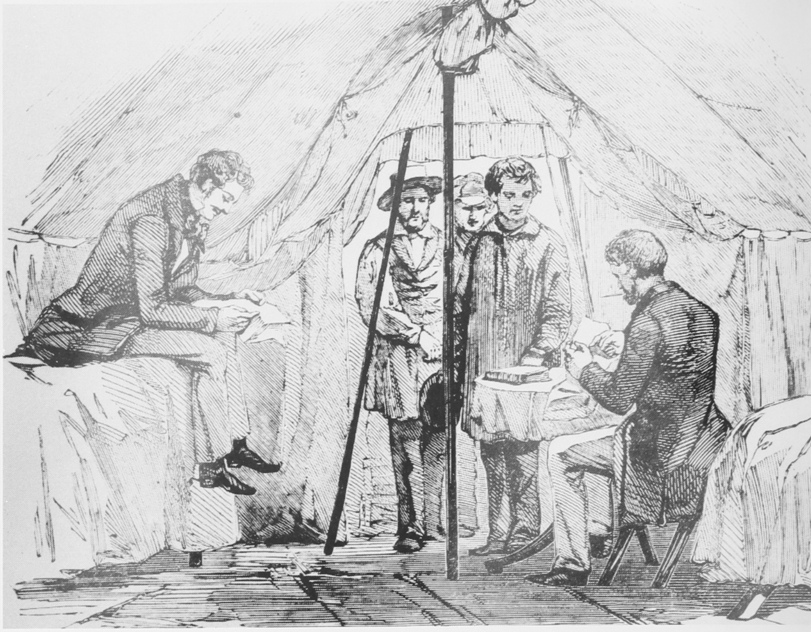
Above: Sofala Township, c.1925. Photograph by Harold Cazneaux. Gold was discovered at Turon in mid 1851 and miners left Ophir and headed towards the Turon River where Sofala became the main centre.

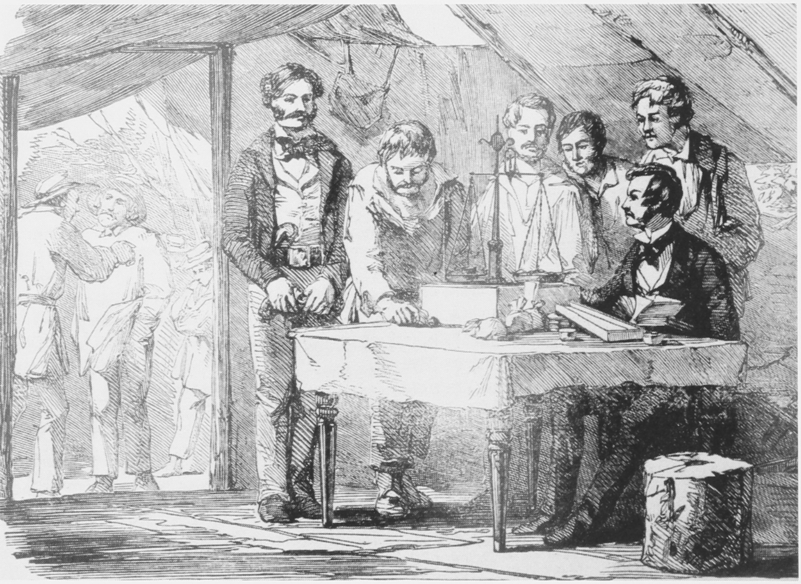
Left: Claim at Hill End, 1872. The photograph, by Bernard Holtermann, shows whim and shaft houses along the western slope of Hawkins Hill. Whims were erected to raise the heavy buckets from shafts by horsepower. The horse walked around a central drum which lowered and raised buckets. The houses had roofs to protect the mines from poor weather. Rich quality veins were found at Hawkins Hill including deposits at the Star of Hope Mine which belonged to a syndicate of which Holtermann was a member. The costs of sinking shafts and cutting drives were often beyond the financial capabilities of small partnerships and companies were floated to mine gold at Hawkins Hill in the early 1870s. However, many company promoters misappropriated investors' funds while some mines were unprofitable.

Mitchell Library, State Library of New South Wales

"Commissioner Issuing Licences to Dig for Gold, Turon River". Within months of the discovery of gold in N.S.W., the Governor proclaimed that all gold belonged to the Crown. From June 1851, all persons who searched for, dug for or removed gold from any land had to buy a license for one pound ten shillings per month, payable in advance. As a result of widespread protests, this amount was reduced to 10 shillings in 1853. Commissioners were appointed to the goldfields to issue licences and settle disputes. The licences constituted a source of revenue for the Government, enabling it to provide facilities such as police, post offices and better roads for gold miners.

National Library of Australia, from Illustrated London News, 22.1.1853, p.56



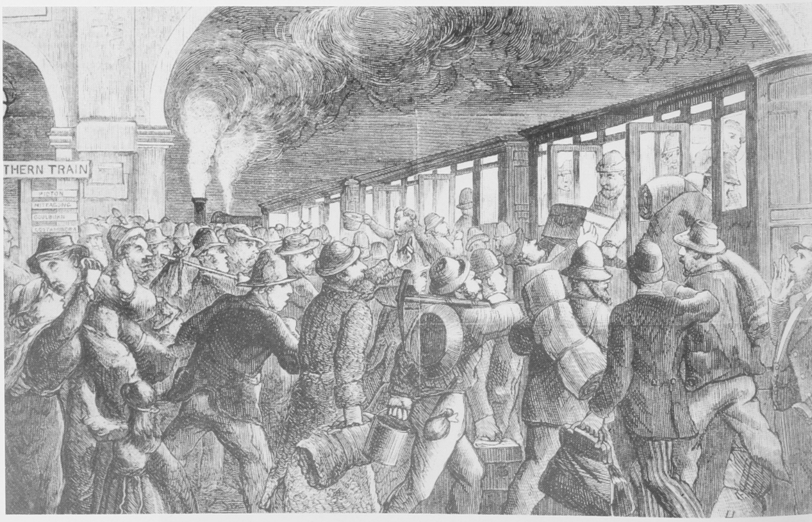


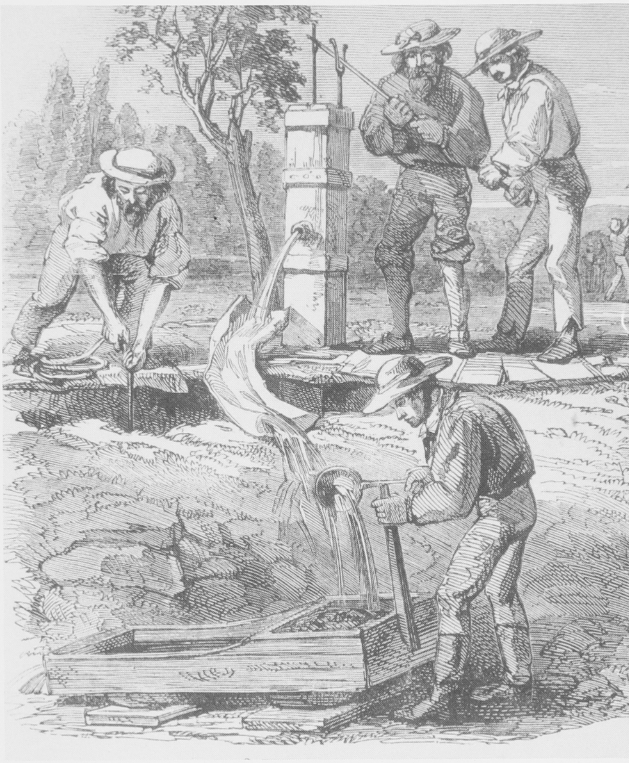
"Assistant-Commissioner Receiving Gold for Escort, Turon River". The Government provided a weekly armed escort from the main gold fields to Sydney. Gold was received by the Commissioner who weighed it in the owner's presence. A small percentage of its value was taken as payment for the escort service. Miners and gold buyers sometimes accompanied the police escort because of the protection it offered against bushrangers. However, in 1862, the Lachlan gold escort was attacked by the bushranger Frank Gardiner at Eugowra Rocks and the sum of about £14,000 was taken. Prior to 1855, gold was shipped from Sydney to the Royal Mint in London, but when a branch of the Royal Mint was opened in Sydney in 1855, gold sovereigns were then produced locally.

National Library of Australia, from Illustrated London News, 22.1.1853, p.56

"Off to Temora! — Scene at the Redfern Railway Station, Sydney". The Temora goldfields were prominent in the years 1881-86. The growth of flourishing minefields encouraged the expansion of railway construction as the inland population demanded passenger and freight communications to meet their need for goods and services in these isolated mining areas.

National Library of Australia, from Sydney Mail 14.8.1880 p.304



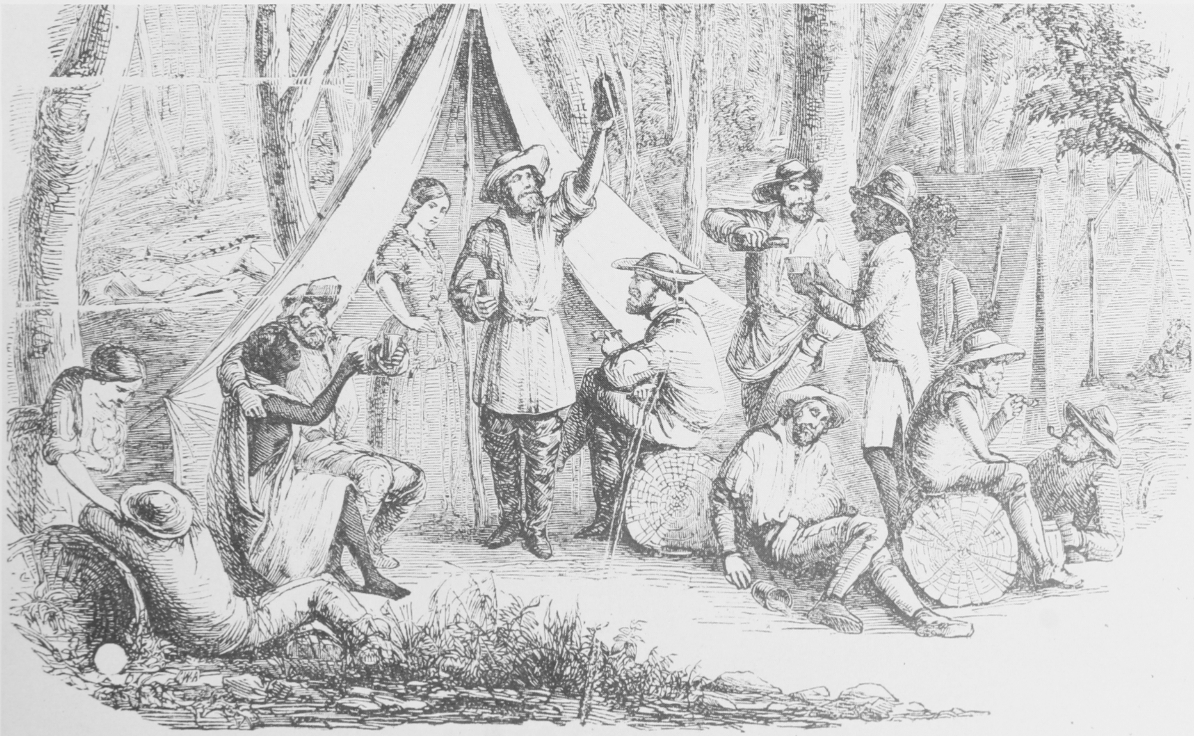


‘River-bed claim on the Turon’. Although mining methods varied according to the location and type of gold, miners often worked in groups of 3 to 6 persons. Under this arrangement, one could remain at the tent and cook while one or two could dig or carry the soil, one rock the cradle while another could pour water into the cradle. In some instances, two cradles were worked simultaneously. A Sydney newspaper, *The Empire*, of 23 May 1851 contained an advertisement, under the words GOLD!!! GOLD!!! GOLD!!!, for a rocker for separating and detecting gold. This was based on a principle used by experienced Spanish, American and Mexican gold miners and cost a ‘mere trifle’. It claimed that the great advantage of a rocker was that it could be dismantled and carried under one arm. The advertisement added that practical information on its use would be given, which would ‘save immense toil, and ensure success’.

National Library of Australia, from Illustrated London News, 21.8.1852, p.124

Gold miners faced many hardships. Transport to the goldfields in the 1850’s was mainly on foot or by dray along a very difficult road over the Blue Mountains. The miners lived in tents and had quite unsuitable clothing to protect them from the high summer temperatures and the freezing conditions caused by frequent snowfalls in winter. Water supply for both personal use and mining activity was essential, but too often excess rain meant flooded river beds, and soaked mines and camps. The miners also had to endure flies, mosquitoes and disease. Their diets were usually limited due to the non-availability and high price of basic foods such as flour, sugar and mutton. Some miners arrived at the diggings without the necessary mining tools. In addition, the miners feared the theft of their gold, horses or equipment and thus many carried firearms. Miners were always wary of unscrupulous gold buyers who attempted to cheat them of their rightful payments. Entertainment was very limited in the early years on the diggings and initially no licensed premises were allowed. However, many sly grog shops were established.

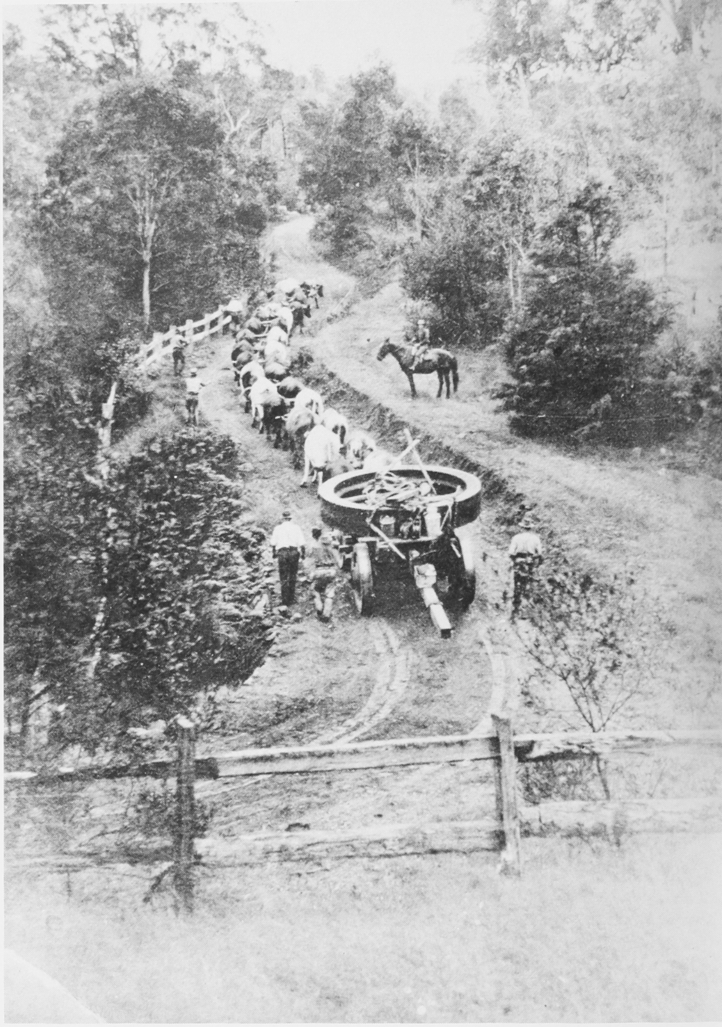
N.S.W. Government Printer



SLY GROG SHOP AT HANGING ROCK DIGGINGS.

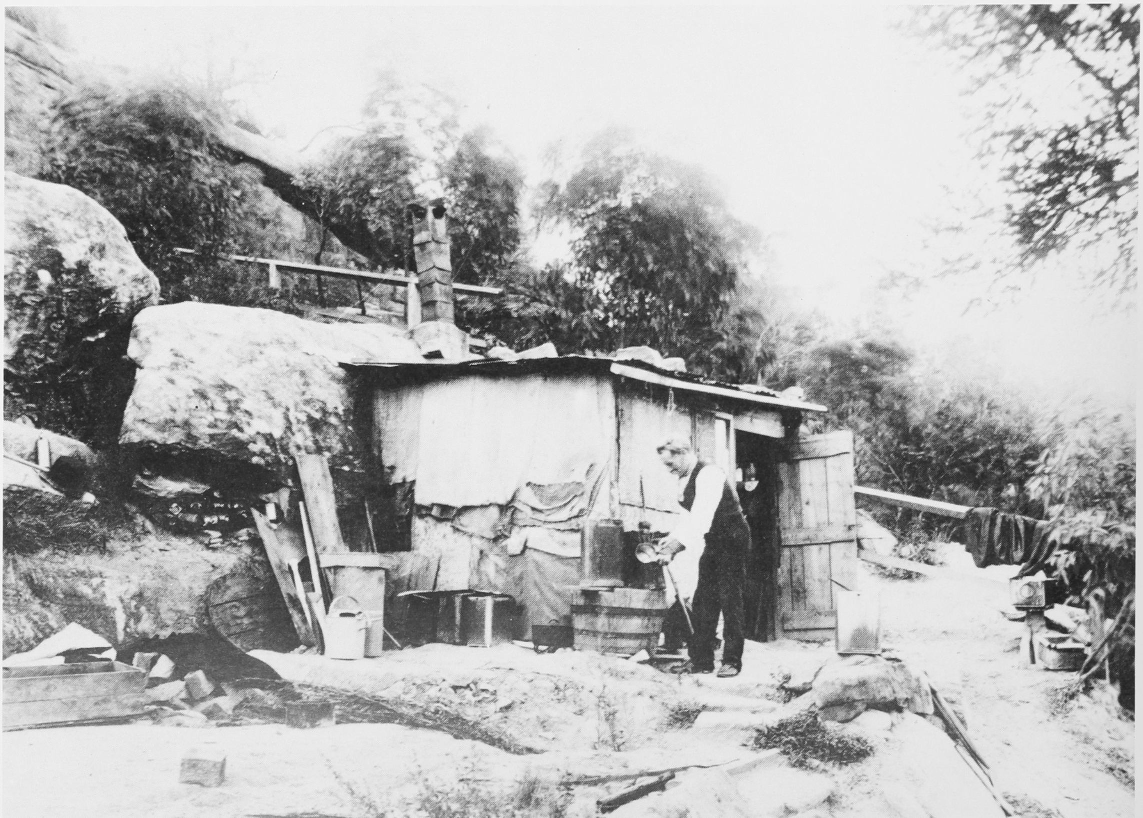
Fly Wheel for the Homeward Bound Gold Mine being transported to Yalwal, near Nowra. The Pinnacle Mine at Yalwal was first mined in 1873. At the Homeward Bound Mine, ore was extracted from open cuts or quarries and mining was still taking place at this mine in the early 1900s, although the ore was of a low grade.

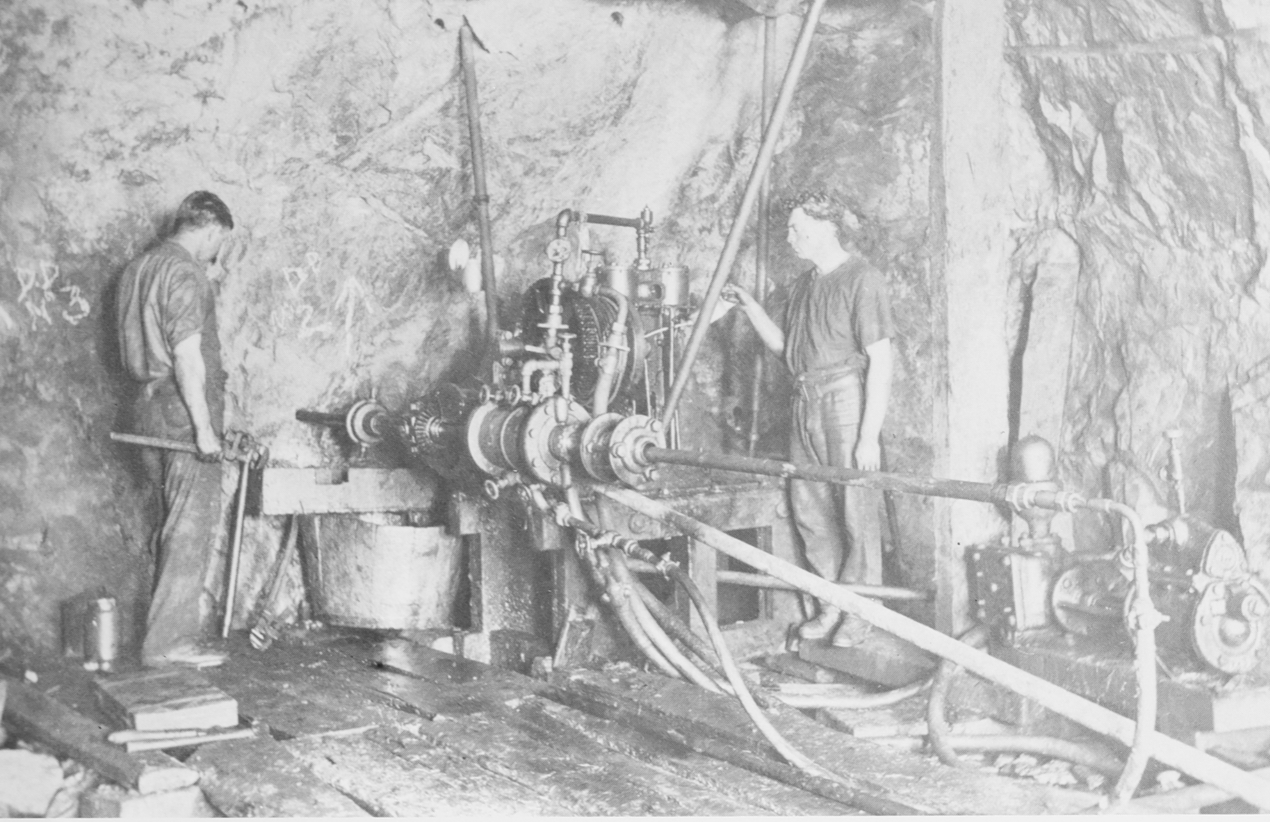
Geological and Mining Museum, N.S.W. Department of Mineral Resources



"A miner's camp". The chimney made of kerosene tins illustrates the creative use to which available materials were put.

National Library of Australia, Kerry photograph, Keast Burke Collection



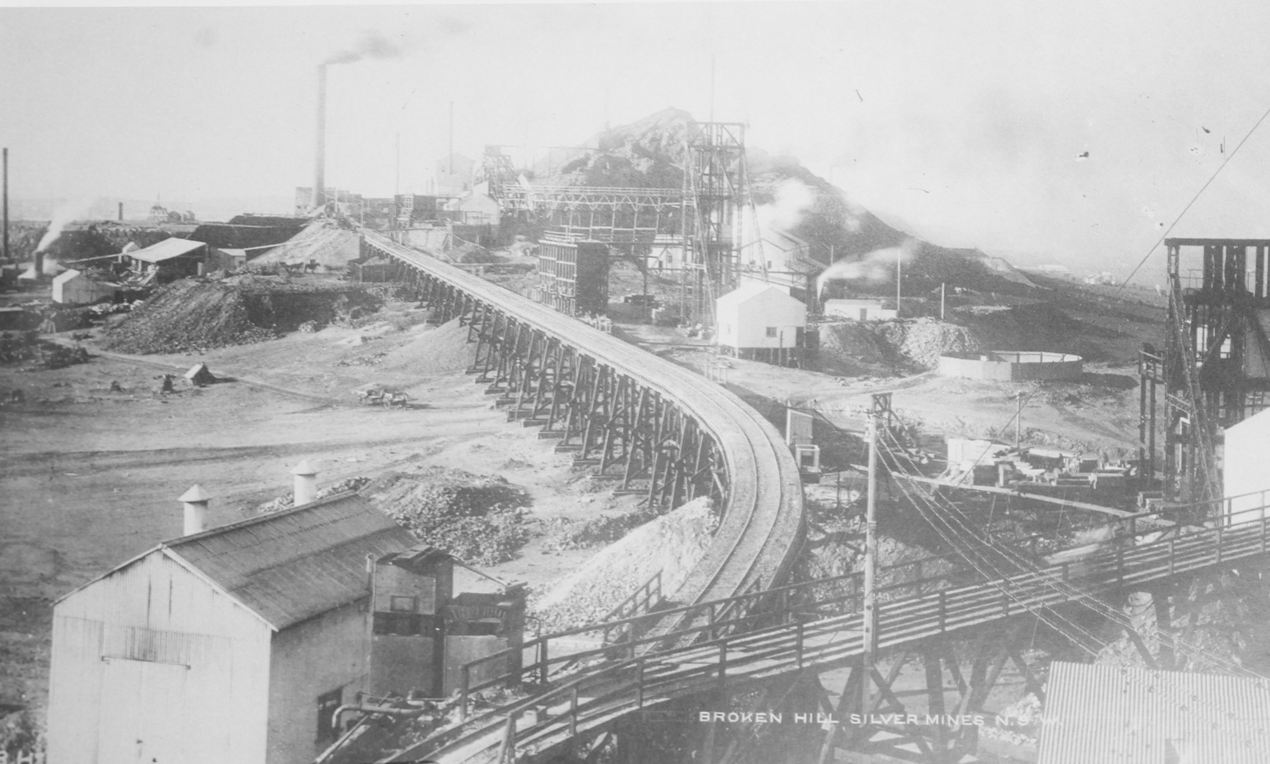


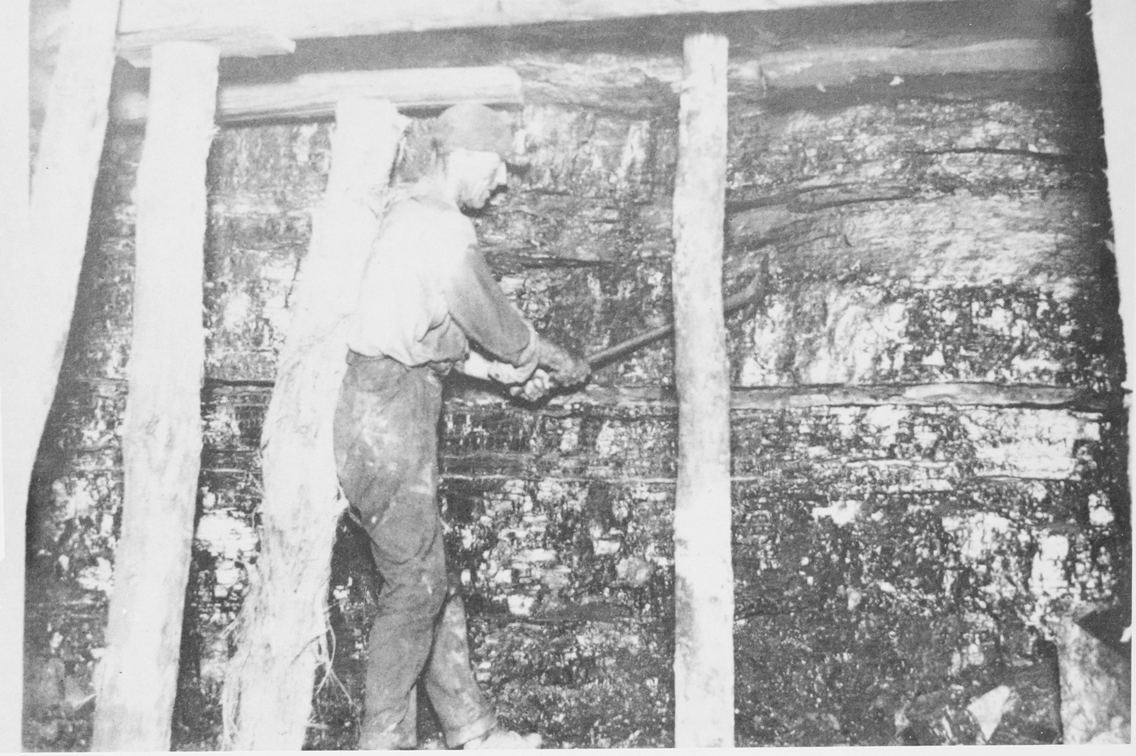
Geological and Mining Museum, N.S.W. Department of Mineral Resources

Diamond drill used for rock boring, early 20th century, Broken Hill.

Broken Hill Silver Mines, 1892. Extensive silver-lead-zinc deposits were mined at Broken Hill from 1883, and soon surpassed gold in the value of their annual yield. Following the discovery of a massive, high-grade ore deposit, the Broken Hill Proprietary Company Ltd (BHP) was formed in 1885. The ore body is formed of mixed sulphides of lead and zinc with a high silver content and, at the surface, oxides and carbonates of lead with various silver minerals.

N.S.W. Government Printer



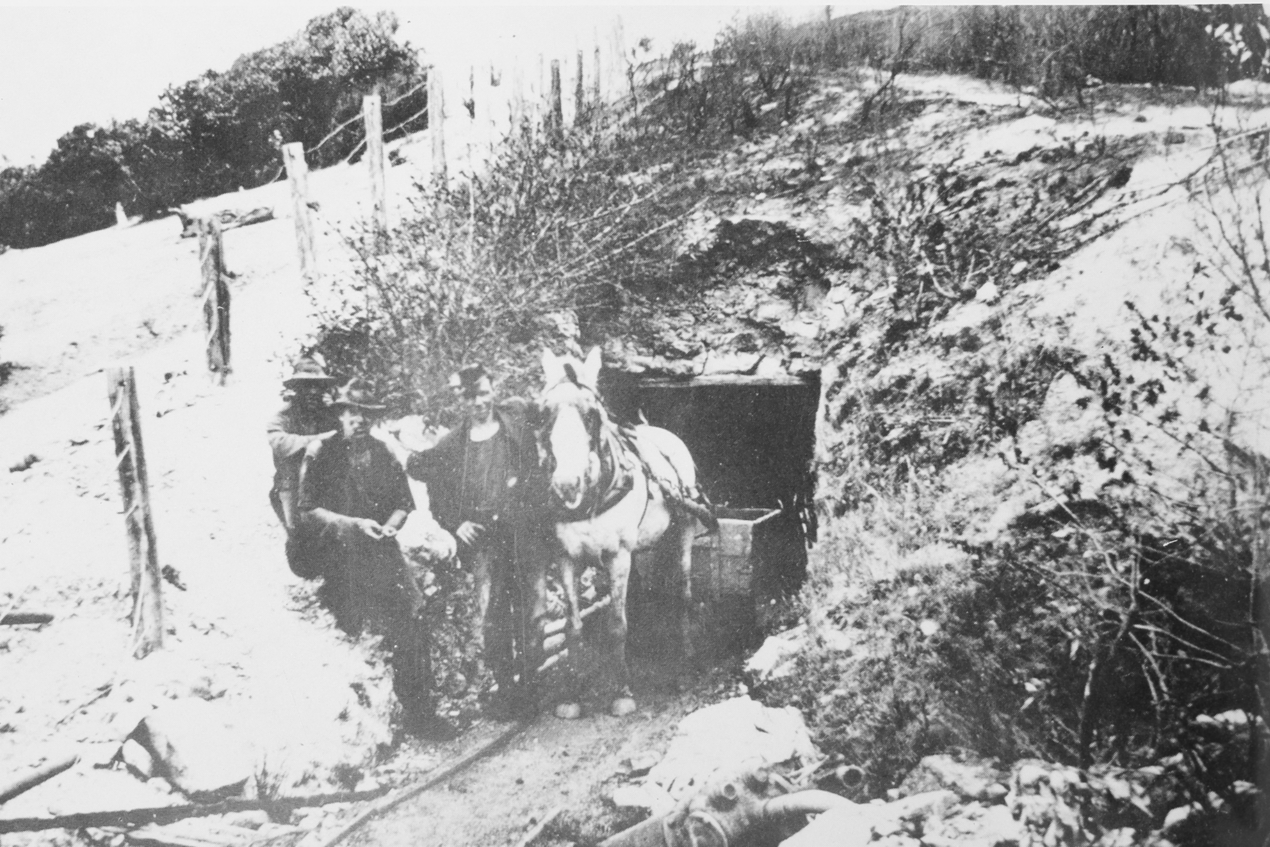


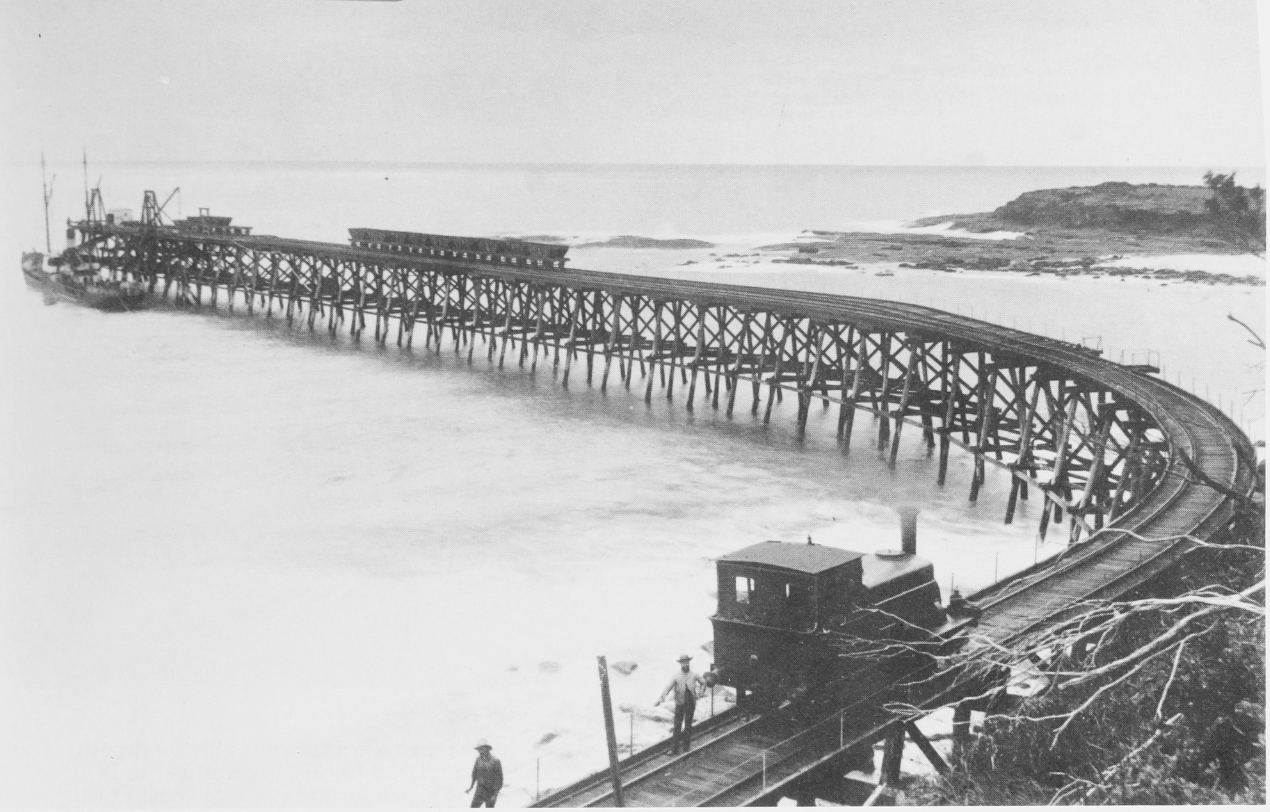
Geological and Mining Museum, N.S.W. Department of Mineral Resources

Cutting coal, Hillside, Newcastle, c.1890. Coal mining with convict labour was established in Newcastle as early as 1804 and in 1826 the Australian Agricultural Company (AA Company) obtained a grant of land together with the sole right to work the coal seams in the Newcastle district. Several mines were opened on these northern coalfields but major development did not occur until the expiration of the AA Company monopoly in 1847.

Entrance to the Glebe Hill Colliery, Newcastle, 1927.

Geological and Mining Museum, N.S.W. Department of Mineral Resources



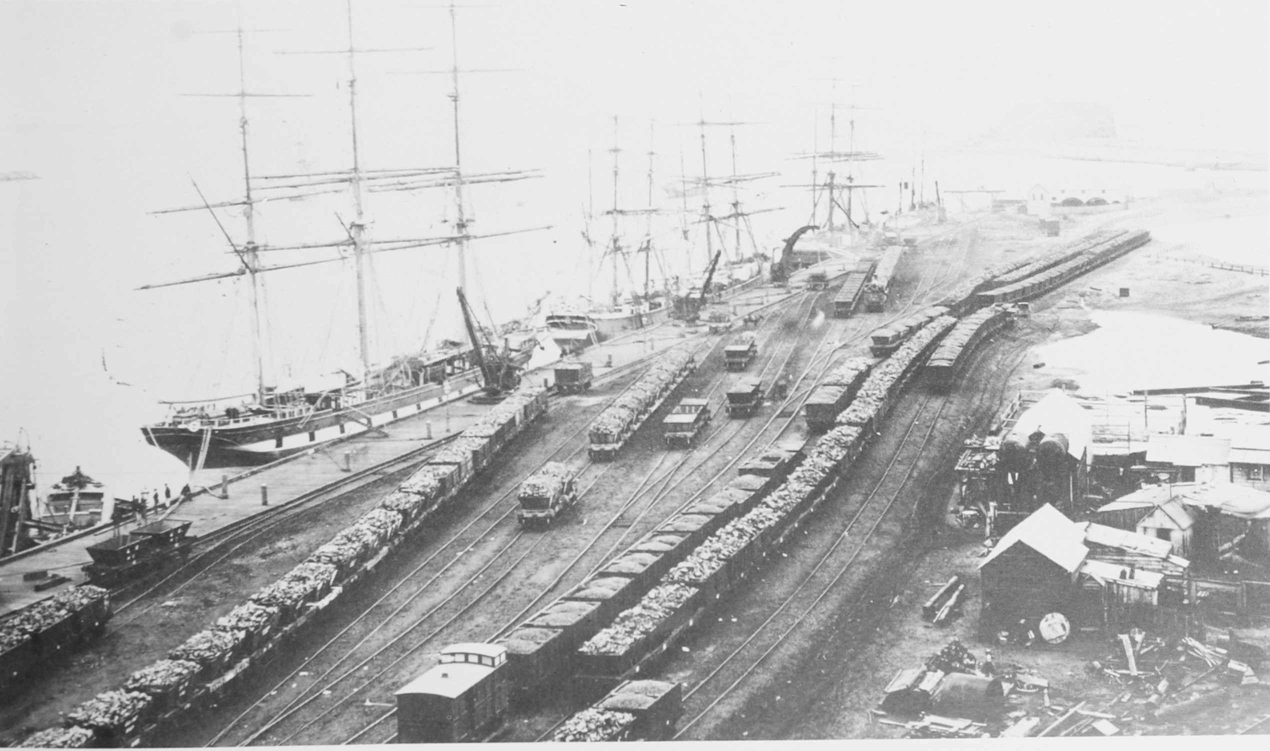


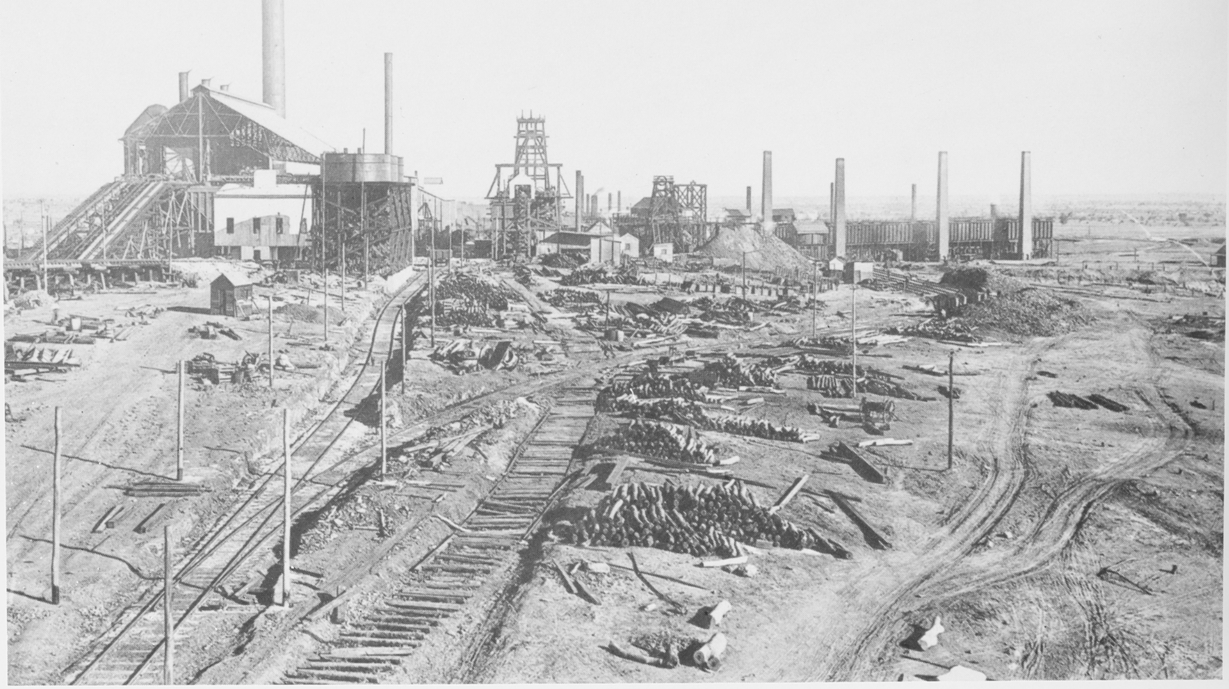
Geological and Mining Museum, N.S.W. Department of Mineral Resources

Wallawah Jetty, Catherine Hill Bay, 1894, showing the rail transport of coal exports from the local coalfield and the loading of waiting ships at the end of the jetty.

Loading coal at Newcastle Harbour, c.1884. Coal exports from N.S.W in 1884 totalled 1,690,763 tons. "Newcastle is singularly well fitted by situation to become the port of supply for all the countries of the southern seas. Every week vessels leave her wharves coal-laden, not only for the Australian colonies, but for China, India, the Pacific Slope of North and South America, Mauritius, the Cape of Good Hope, and other lands. Every provision has been made by the Government for shipping coal, and nearly 3 miles of wharves line its shores, furnished with cranes and shoots capable of loading 16,200 tons per day". Wealth and Progress of New South Wales 1886-87. T.A. Coghlan.

National Library of Australia



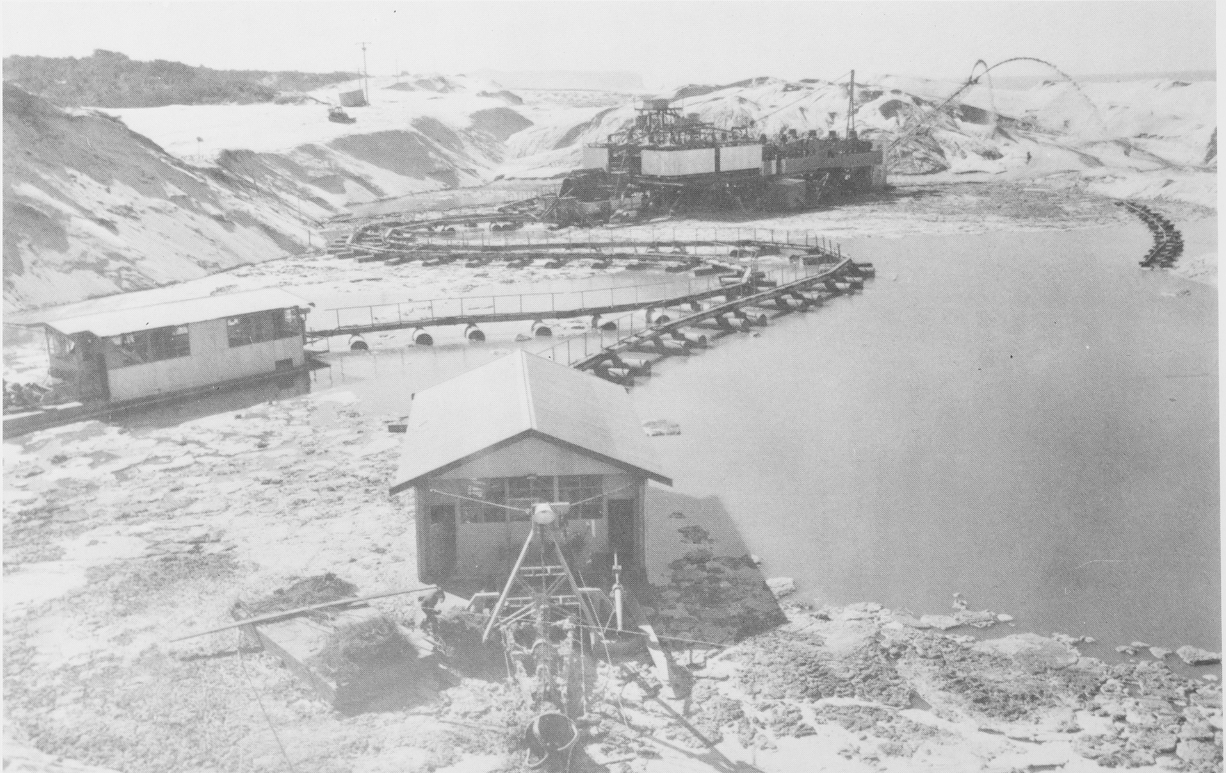


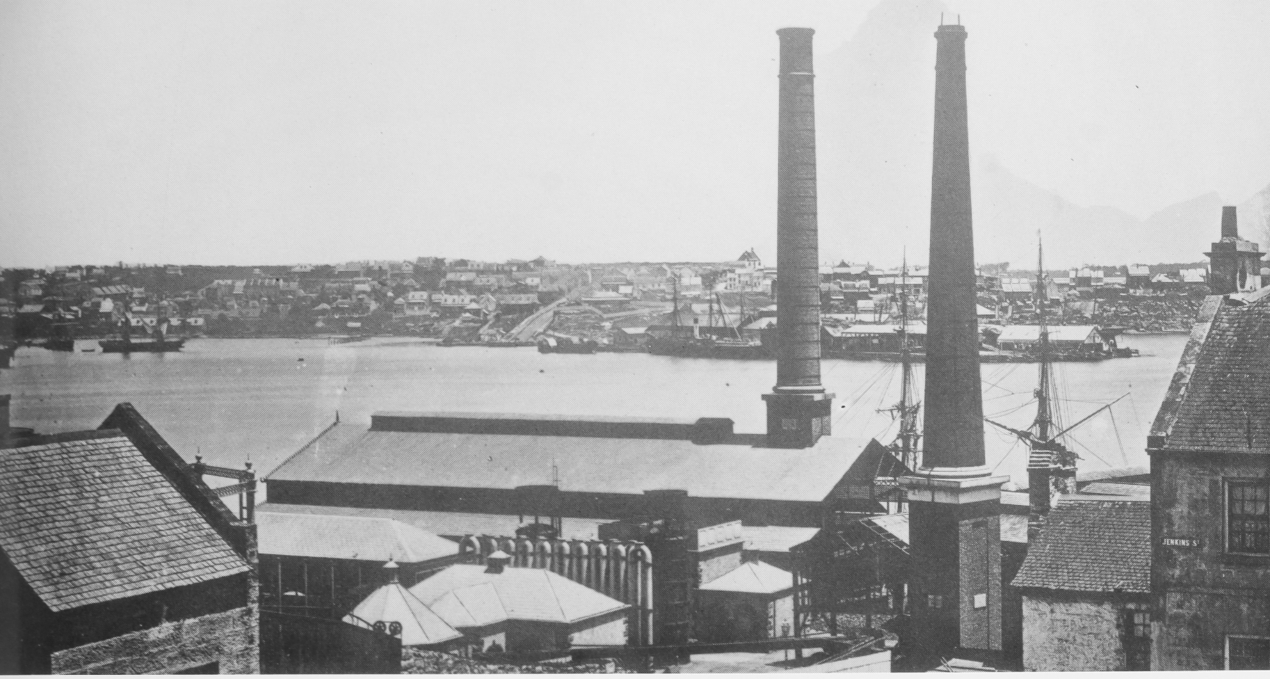
Geological and Mining Museum, N.S.W. Department of Mineral Resources

Great Copper Mine, Cobar, 1908. Copper mining commenced at Cobar in the 1870s, a few years after the deposits were discovered. The main mines were amalgamated under the name of the "Great Cobar Copper Mine" in 1876. The Cobar mines constituted the chief centre of the copper-mining industry, but the operations of Great Cobar, the principal mine, came to an end during 1920 due to the large fall in the price of copper which occurred in 1919, higher wages, increased shipping and railway freight charges, and the high cost of treatment of copper matte.

Heavy mineral sand mining operation, Hawks Nest during the 1970s. Mineral sands, including rutile, zircon and ilmenite, are recovered from naturally concentrated sands along the coast of N.S.W., mainly in the Newcastle area and the far north coast. Most mining operations are now confined to dunes and swamp areas behind beaches. In recent years, sand mining leases have required that an attempt be made to restore the site to its original condition. The industry underwent a marked expansion from 1939 to 1972. Since then however, the output of the industry has steadily declined, due to lower metal prices and environment constraints which limit the high grade areas that may be mined.

Geological and Mining Museum, N.S.W. Department of Mineral Resources



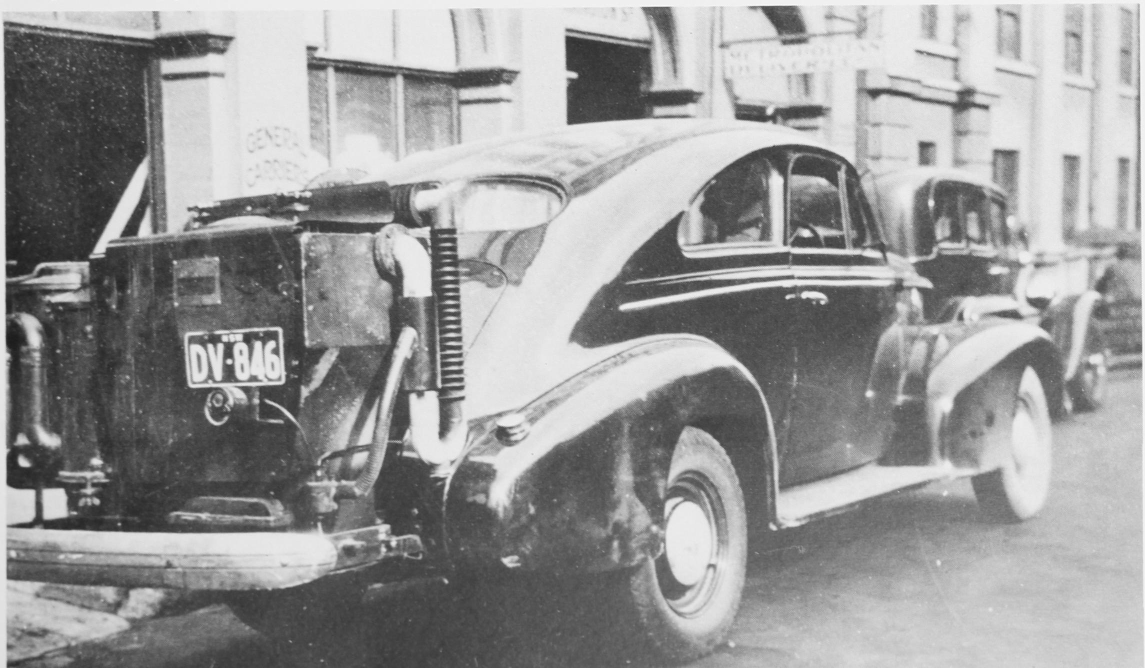


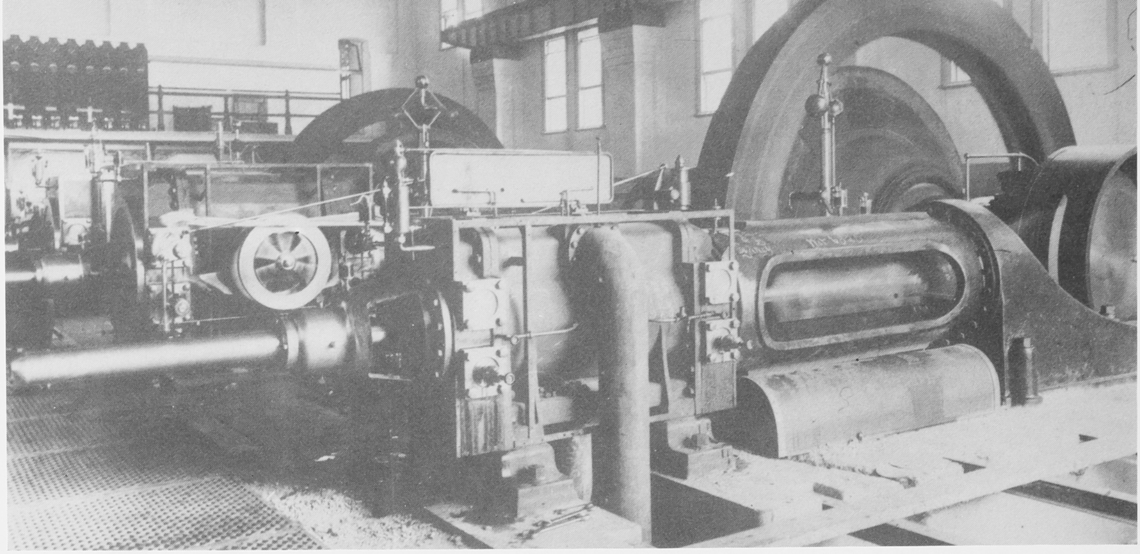
N.S.W. Government Printer

Above: The Australian Gas Light Company's works, Darling Harbour, 1870. The Company, formed in 1837, was situated on a freehold site between Kent Street and the shoreline below the northern end of Clarence Street. Coal was unloaded directly to the works at the Company's own wharf. The plant was operational by 1841 when the first gas lamps lit Sydney's streets and a few residences and business premises for the celebration of Queen Victoria's birthday. The first electric light appeared in 1863 on Observatory Hill, but it was not until 1904 that electricity began to replace gaslights for street lighting. Gas production was transferred progressively from 1886, to Mortlake, on the Parramatta River, but production from coal was phased out by the early 1970's when a long-term contract was signed for the supply of natural gas by pipeline from South Australia. Natural gas arrived in Sydney in 1976 and lateral pipelines have since brought natural gas to Wollongong, Newcastle and several other cities of the State.

Below: A commercial gas producer unit fitted to a car during World War II. During the war, petrol rationing was introduced and users of motor vehicles were encouraged to use substitute fuels such as producer gas, town gas or electricity (batteries). The Balmain coal mine was reopened for methane gas, which was sold as a petrol substitute, and the Australian Gas Light Company's most important contribution to wartime fuel supplies was the production of gas to power cars. In the 1980's, liquid petroleum gas (LPG) has become widely used by taxi companies and fleets of other commercial vehicles.

Geological and Mining Museum, N.S.W. Department of Mineral Resources



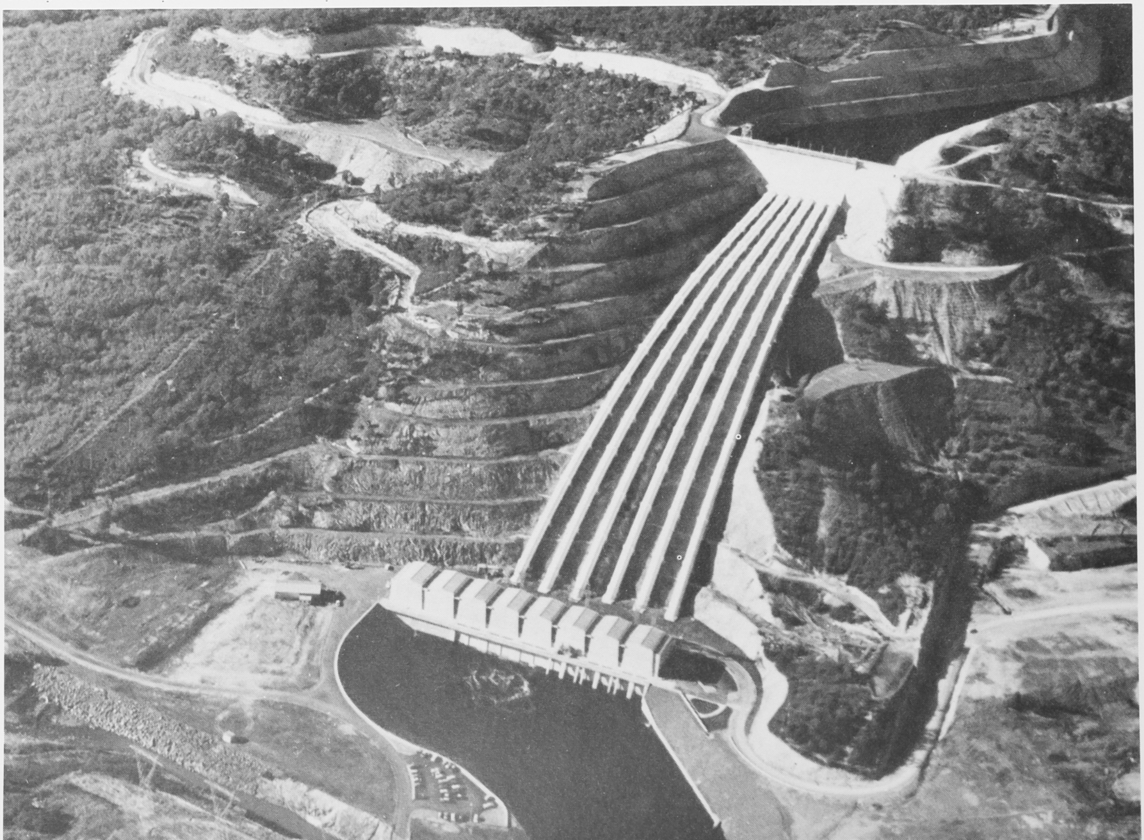


Archives Office of N.S.W.

Above: Machine Room, Ultimo Power House, 1899. The Department of Railways opened this power station in 1899 to supply power to Sydney's new electric tramway system. Four 850 kw, 600 volt DC generators were powered by 14 boilers. A brick chimney stack, 70 metres high, became a local landmark. The station was acquired by the State Electricity Commission in 1952 and closed in 1963, the year in which Sydney's last tram ran. Both the power station and the adjacent former tram depot are being converted for use as the Powerhouse Museum, to be opened during the bicentennial celebrations in 1988.

Below: The final unit of Tumut 3 Power Station was brought into commission in 1974, and marked the completion of the Snowy Mountains Hydro-Electric Scheme. This is the largest of the Snowy power stations, having six units, each of 250 megawatts. The power stations are operated by water which is diverted by means of aqueducts, tunnels and shafts from streams and rivers rising on the eastern side of the Great Dividing Range at high elevation. When discharged from the diversion networks, the water flows at low elevation into the Murray and Murrumbidgee river systems on the western side of the Range, and is used for irrigation. Power from the generating stations is fed into the N.S.W. and Victorian interconnected systems at central switching stations. A small proportion of the electricity, drawn from the N.S.W. system, supplies the requirements of Canberra.

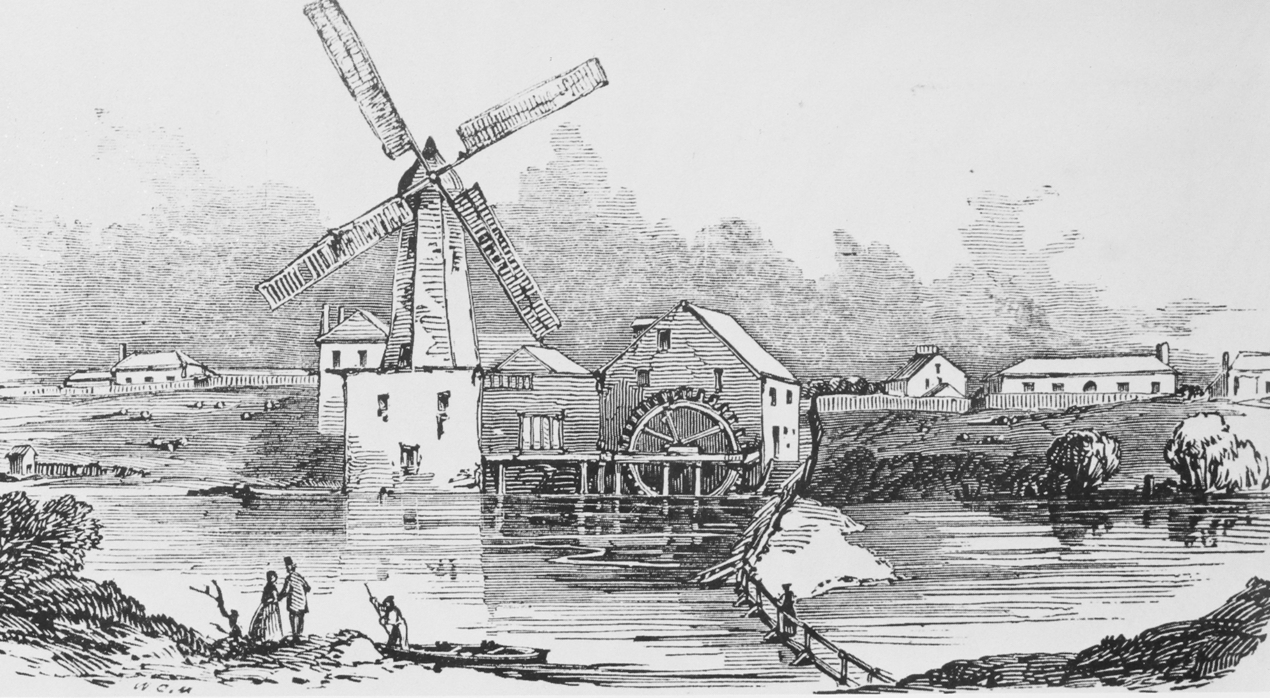
Snowy Mountains Hydro-Electric Authority

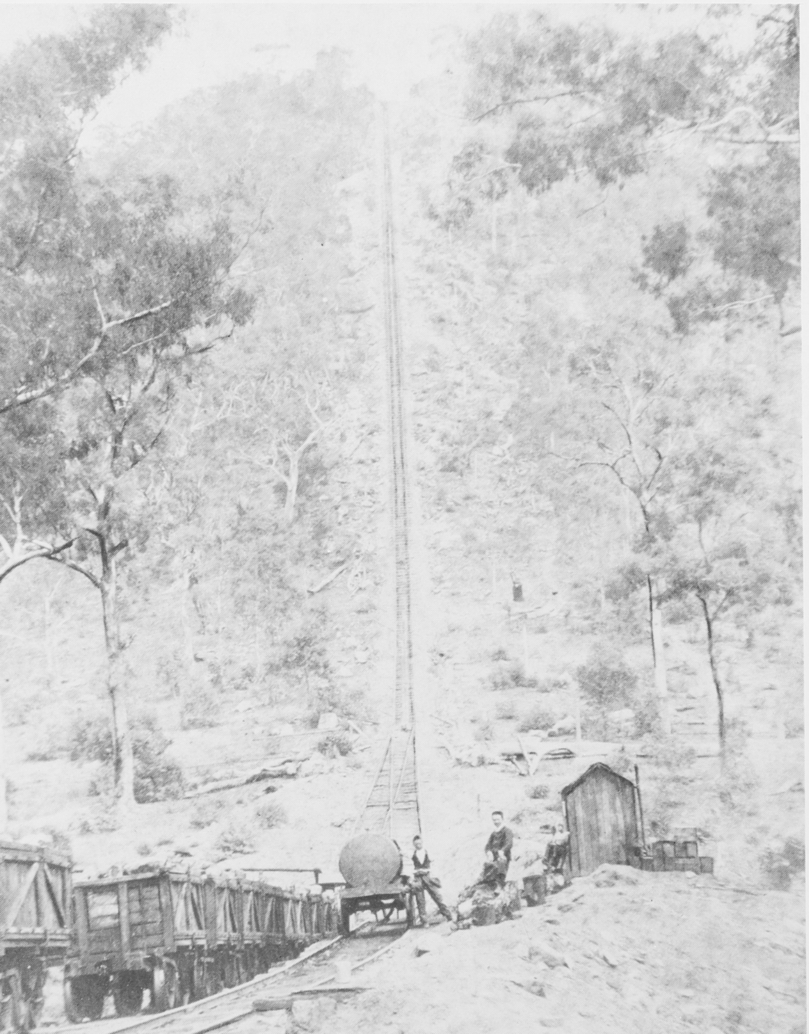


Geological and Mining Museum, N.S.W. Department of Mineral Resources

Some of the coal for the Electricity Commission of New South Wales' thermal power stations comes from Ravensworth No.2 Open Cut Mine (above), which is operated under contract to the Commission on leases held by the Commission. Liddell Power Station (below), presently obtains its coal supplies from the Ravensworth and Swamp Creek open cut mines. The mines are located approximately 12 kilometres from the Station and the coal is transported by an overland conveyor belt system. Liddell is the lowest energy cost base load power station on the N.S.W. system because of the low cost of coal consumed. The fourth 500MW generating unit was brought into full commission in 1974, marking the completion of this 2,000MW generating plant.

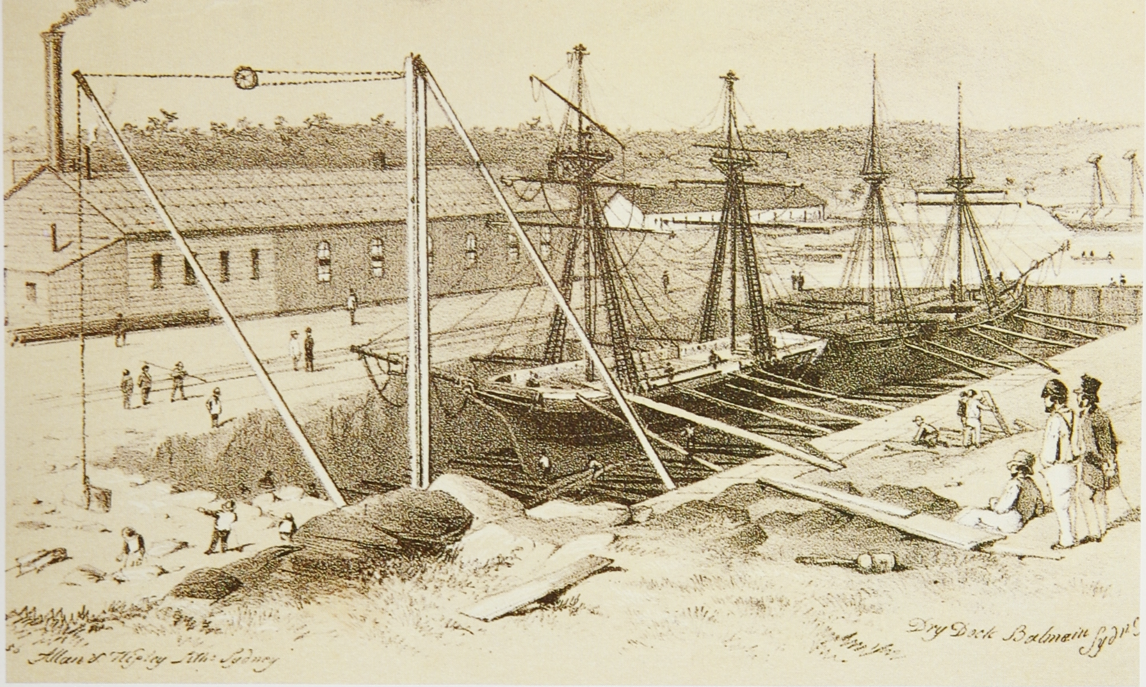
The Electricity Commission of N.S.W.





Above: The Old Mill, Parramatta, 1854. This was one of the first mills in Parramatta, and was built by George Howell in 1828. It was powered by wind and water and a wooden weir was built across the Parramatta River to regulate the tidal flow of water. The mill was situated on the south-east corner of the present Gaswork's Bridge for the purpose of grinding wheat and corn for flour. It supplied the bakeries in the area and served in developing the flour industry in Parramatta. From the mid 1850's it was used for accommodation, and after becoming a tourist attraction for a period, it was finally abandoned in 1868.

Left: The large incline at the Joadja Creek kerosene and shale mine, about 12 miles (19 kilometres) west of Mittagong. Mining operations were commenced in 1876 and the tramway was constructed by the owners, the Australian Kerosene Oil and Mineral Company, to connect the mine with the Great Southern Railway line at Mittagong. Kerosene shale was used for making illuminating, lubricating and other oils, as well as for the manufacture of paraffin wax-candles. Operating costs and industrial troubles caused the closure of the plant in about 1902.

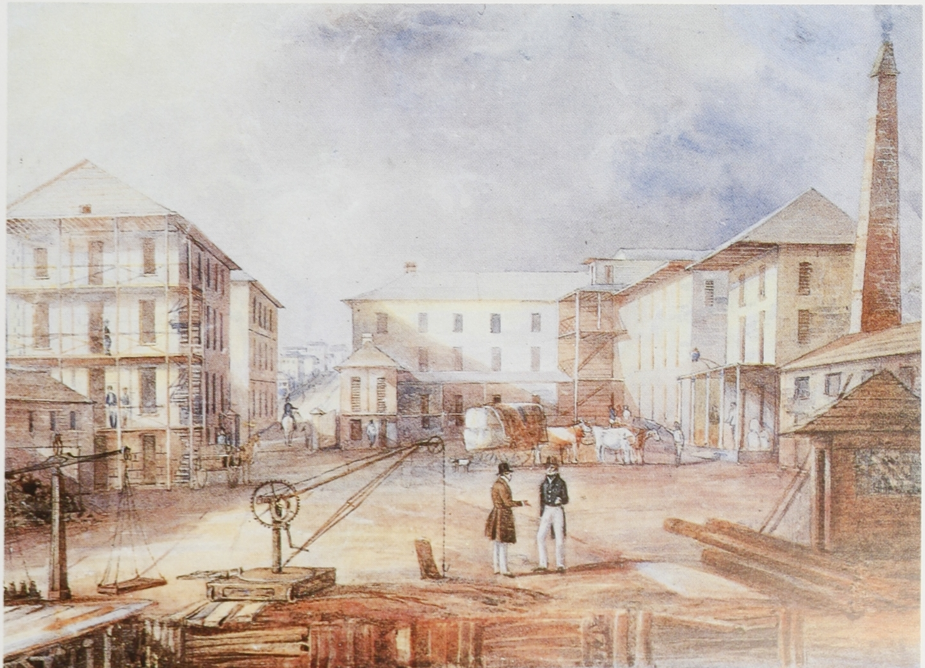


National Library of Australia

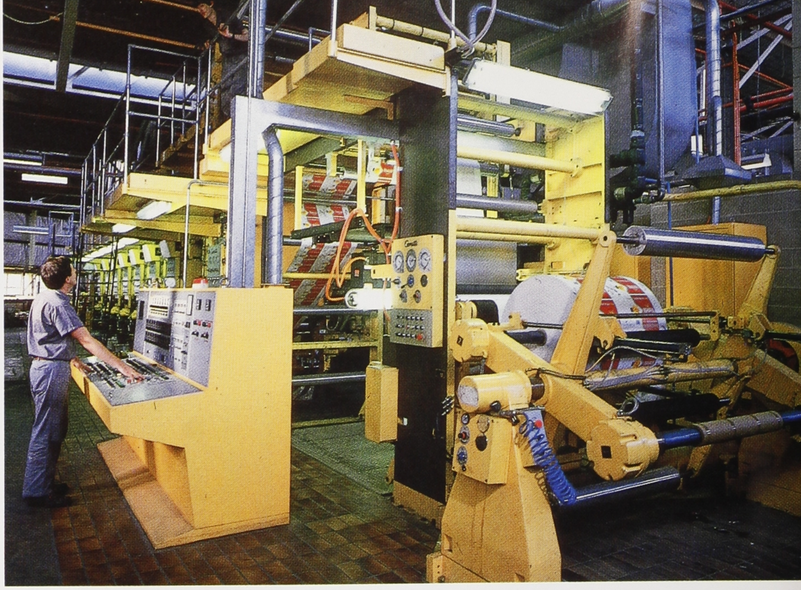
Above: Dry dock, Balmain, Sydney in 1856 by S.T. Gill. The rapid growth of shipping between England and Australia in the early 1850's, and especially the beginning of steam shipping, created a demand for additional facilities for the repairing of ships. In the years 1855-56, Thomas Sutcliffe Mort and his partners constructed a dry dock at Waterview Bay, later know as Mort's Bay. By the 1880's, all aspects of ship building, fitting and repairing were catered for, including the provision of three slipways and a graving dock for vessels of 1,500 tons or more. The Company also manufactured locomotives, bridges, pumping equipment and mining and industrial machinery. Altogether, over 1,000 people, including apprentices, were employed. This was the single most important enterprise of its kind in the early history of the State. Mort's Dock and Engineering Company (Limited) was later amalgamated with R.Goldsbrough & Co. as Goldsbrough Mort & Co. The site is now taken up by the Australian National Line's container terminal.

Below: Watercolour by Frederick Garling, of the Albion Mills, which, in 1841, were among the 82 mills in the State used for grinding and dressing grain, (27 of which were powered by steam, 27 by wind, 20 by water and 8 by horse). The Albion complex of mills, stores, hotel (in Sussex Street) and wharf, located in the area later covered by the eastern approach to Pyrmont Bridge in Darling Harbour, were destroyed by fire in 1841. The Albion establishments were owned in partnership by John Terry Hughes and his brother-in-law, John Hosking (Sydney's first Mayor), and the fire led to their financial collapse and ultimately to the ruin of their financier, the Bank of Australia.

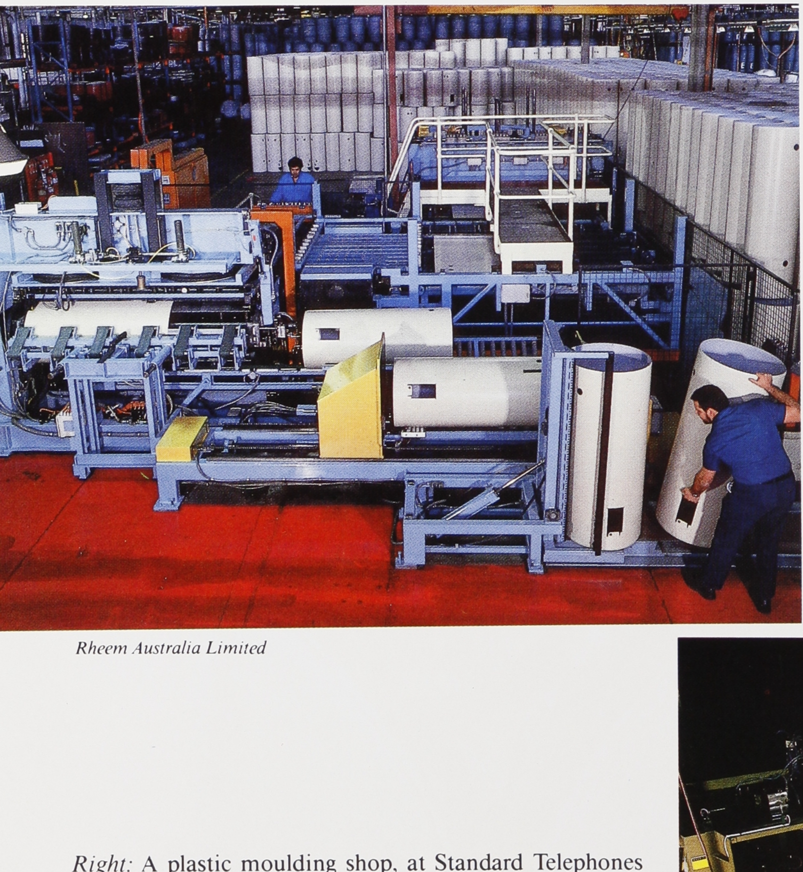
Mitchell Library, State Library of New South Wales



Right: A computer-controlled Cerutti 8 station gravure printer at Rheem Australia Limited's Villawood plant. Laminates of papers, films, foils and other flexible materials are printed by the use of this gravure and flexographic 6-colour printing equipment, to produce packaging for a wide variety of food products.



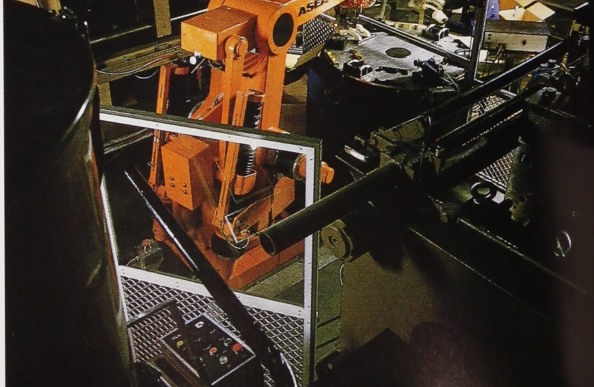
Rheem Australia Limited



Left: During 1939, Rheem began manufacturing gas water heaters, but it was not until 1945 that production of electric models commenced. The photo shows the automatic forming of water heater outer bodies at the Company's plant at Rydalmere in the mid 1980's. The range of water heaters now includes gas, off-peak electric and solar powered models, in addition to commercial and industrial systems.

Rheem Australia Limited

Right: A plastic moulding shop, at Standard Telephones and Cables Pty Ltd's factory at Alexandria in Sydney in the mid 1980's. A robot performs the majority of operations on two adjacent 320 tonne plastic injection moulding machines. Mainly ABS and polycarbonate resins are used to form items varying in size from bobbins for miniature components to cases for telephones. Approximately 450 tonnes of moulding powder are used each year to produce more than 35 million plastic parts in 16 different colours.



CRA Limited

At Comalco's plant at Yennora, rolled plate, sheet and foil are produced. A warm mill operator checks coilstock which will be further rolled and made into aluminium beverage cans for Australian or overseas markets. The rolling mill at Comalco also recycles scrap aluminium cans into new aluminium can sheet. Photograph by David Moore.

"STC" is the registered trademark of Standard Telephones and Cables Pty Ltd. The Company's operations are located in the Sydney suburbs of Alexandria and Liverpool. The 3 factories which comprise the Alexandria complex produce highly sophisticated switching and transmission equipment. This complex also manufactures the latest in telephone equipment. The factory at Liverpool produces Commander N small business telephone systems, power conversion equipment and submarine cable repeaters. The photograph on the right shows a computer controlled milling machine for the manufacture of sophisticated jigs and moulding tools. A wide variety of moulding dies and press tools are made to tolerances of 0.0025mm, using precision processes such as jig boring and grinding and spark erosion.

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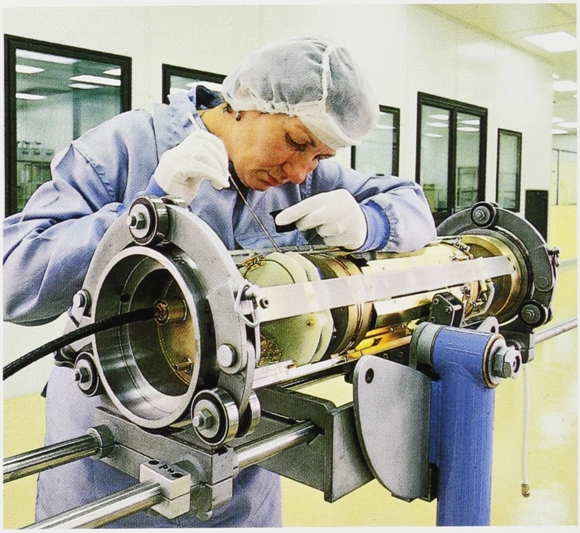
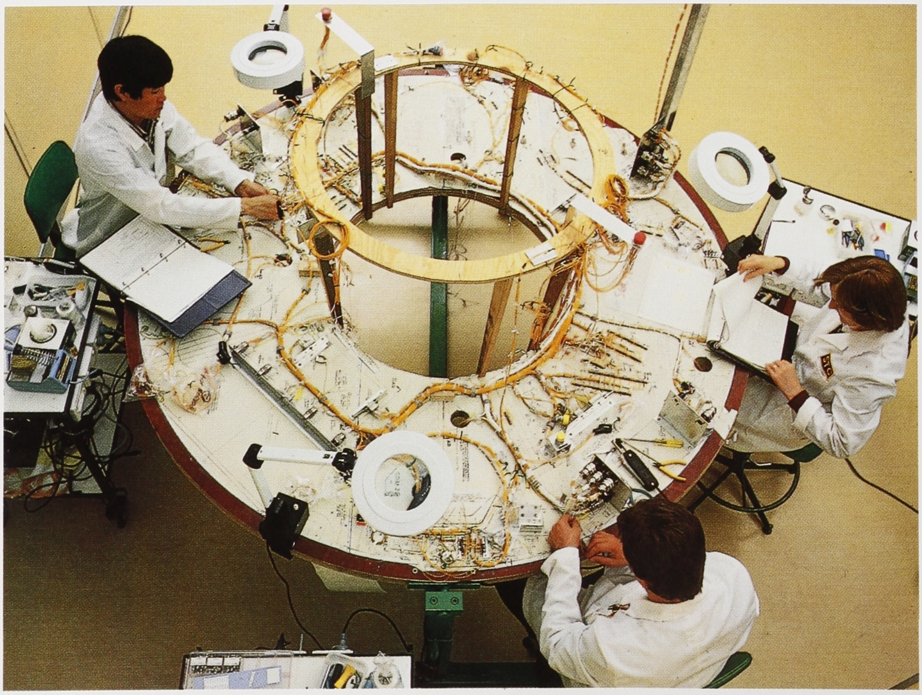
STC

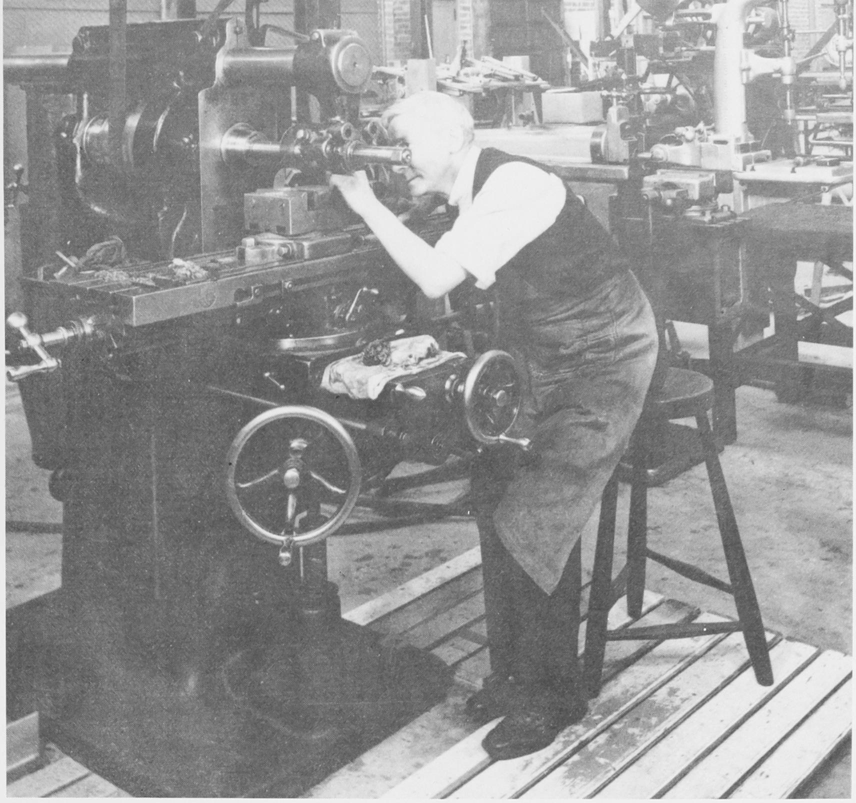
STC



The area at STC's Liverpool plant which manufactures submarine cable repeaters has a very strict temperature, relative humidity and dust controlled environment. Extremely high quality components and very rigid quality controls are essential aspects of the production of the repeaters, which must have durability and high reliability. The repeaters have to operate, maintenance free, on sea beds, at depths of up to 6,000 metres, for very long periods. The photograph on the left shows a skilled operator undertaking 100 per cent visual inspection of a completed capsule prior to its electrical testing. The factory also undertakes the manufacture of complex wiring harnesses (below), telemetry control systems and power switching equipment for use in satellites constructed by the Hughes Aircraft Corporation (USA).

STC



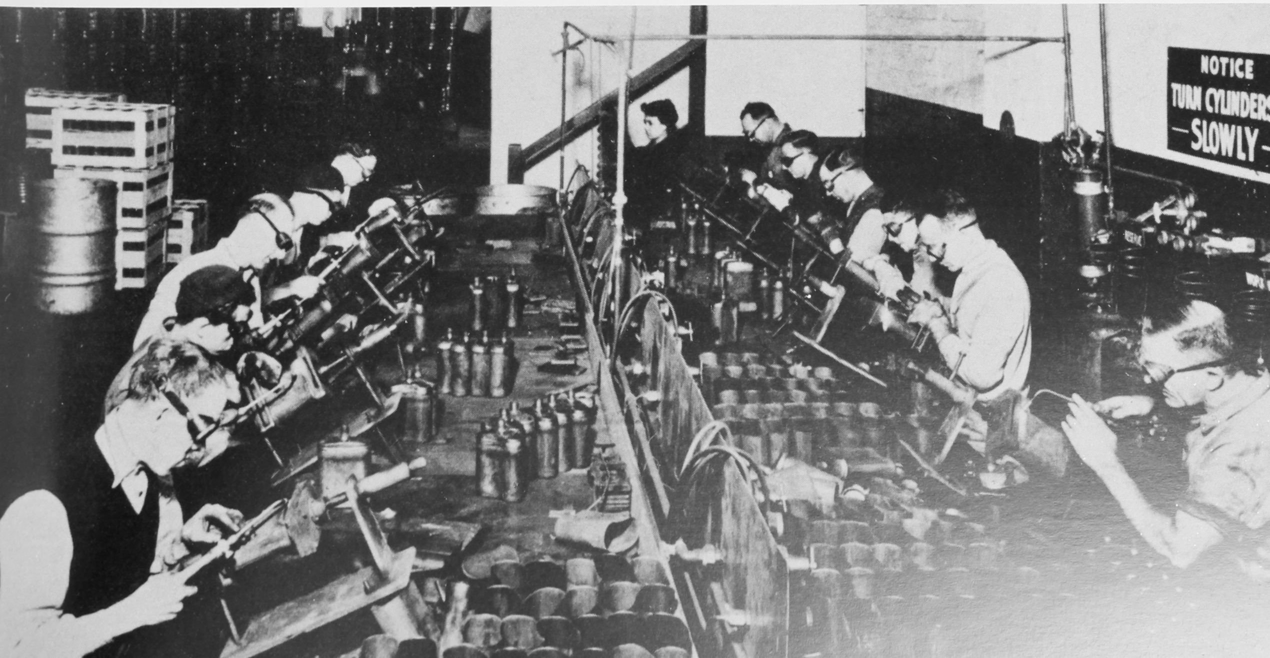


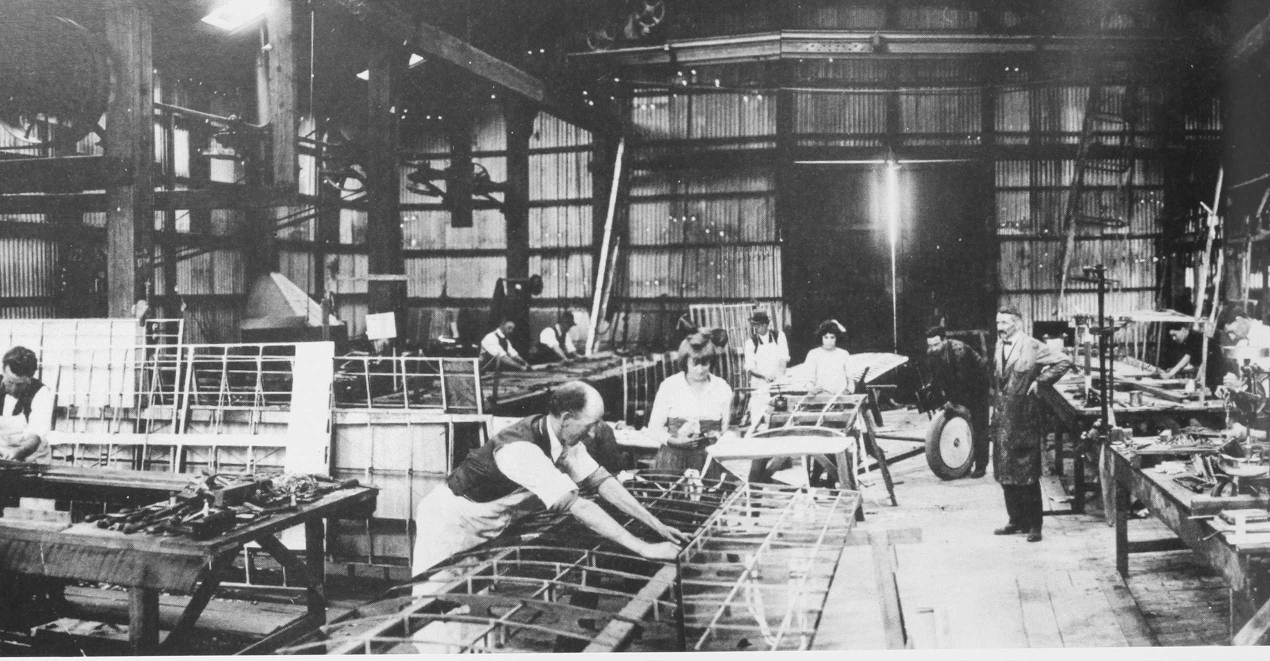
STC

Above: A milling machine in the toolroom at Standard Telephones and Cables Pty. Limited's factory in the 1930's. STC commenced production of telephone and radio receivers, in Chippendale, in 1925 and manufacturing of radio broadcast transmitters and various types of telephone equipment soon followed. In 1935, a larger factory at Alexandria was opened and World War II led to a further expansion of manufacturing facilities when a wide range of communications and associated equipment was produced for the Allies.

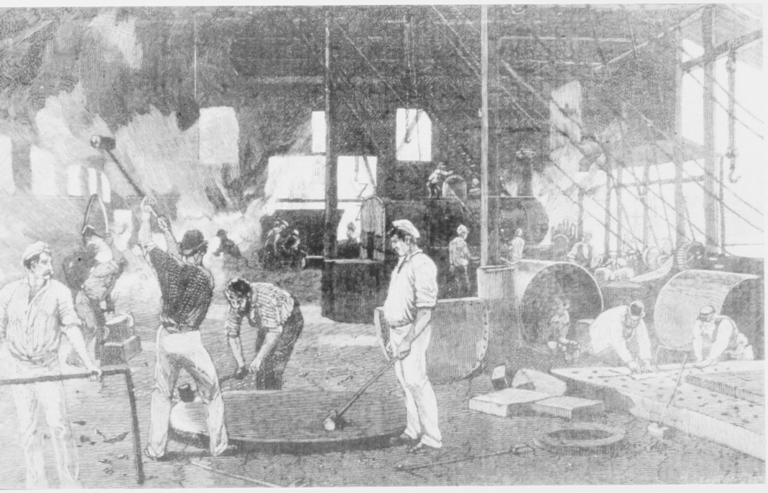
Below: Rheem commenced manufacturing 44-gallon, 18 gauge drums, in Sydney in 1937 and production of heavy, returnable drums and underground storage tanks followed. The Company produced water bottles (as shown in this picture) for the Allies in World War II. Other products manufactured by the Company for the war effort included small storage drums, boom defence buoys, bombs, smoke containers, shells, aircraft parts, machine tools, ship shafting and ammunition boxes. At home during the war, many trucks ran on Rheem-made gas producers.

Rheem Australia Limited





Qantas Public Affairs



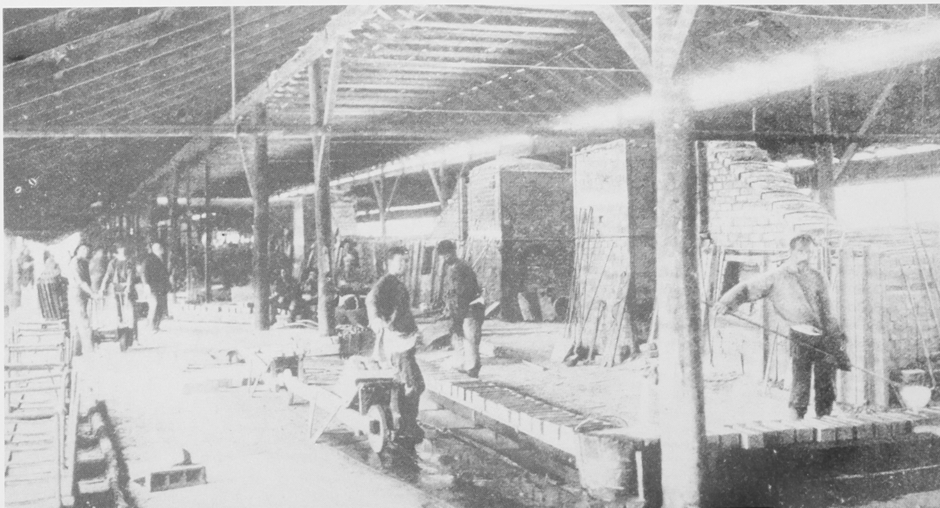
Mitchell Library, State Library of New South Wales, engraving from "Illustrated Sydney News", 26 January 1888

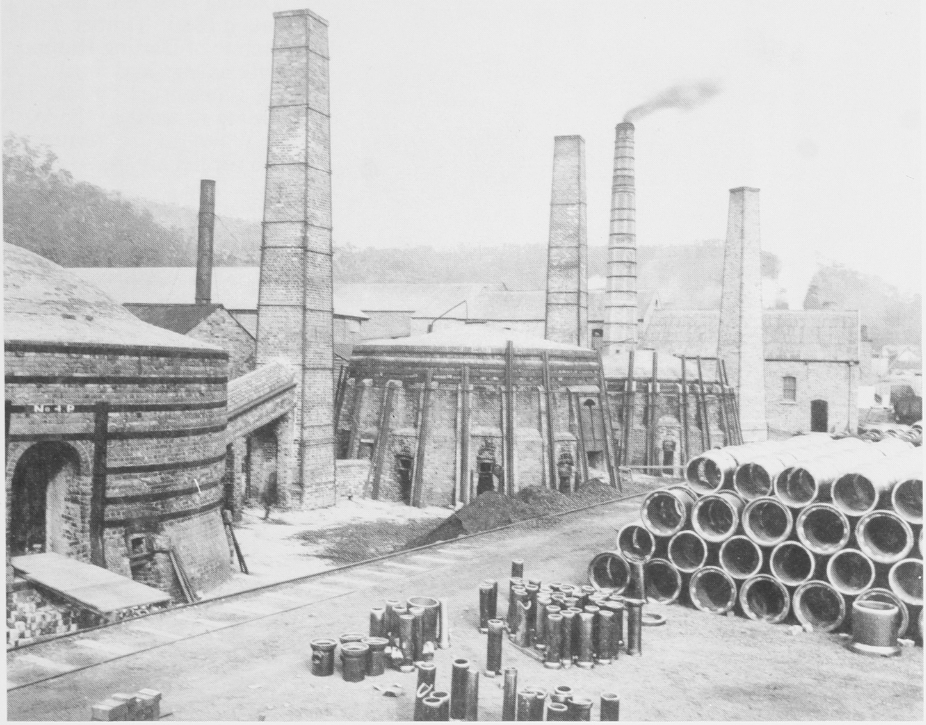
Above: Interior of The Australian Aircraft and Engineering Company at Mascot. The Company was registered in Sydney in 1919 and was the first aircraft construction company in Australia. It specialised in the construction of the Avro 504K biplane which had a fabric-covered wooden structure, measured nearly 29 feet (about 9 metres) and carried a pilot and two passengers at a cruising speed of 65 miles per hour (about 104 kilometres per hour). In 1921, QANTAS ordered its first two planes from the Company. The company closed in 1923 through bankruptcy.

Left: The building of the first locomotive made in N.S.W. at the Atlas Engineering Works in Sydney. To assist local industry, the State Government gave the contract for 8 engines to Atlas and the engines were delivered in 1882. Mining provided the impetus for the building of railways, and during the railways boom of the 1880's, there was a great demand for locomotives, carriages and goods wagons. Atlas also built 2 torpedo boats for the N.S.W. Torpedo Corps in 1878.

Source: "Geography of N.S.W.", by J.M. Taylor

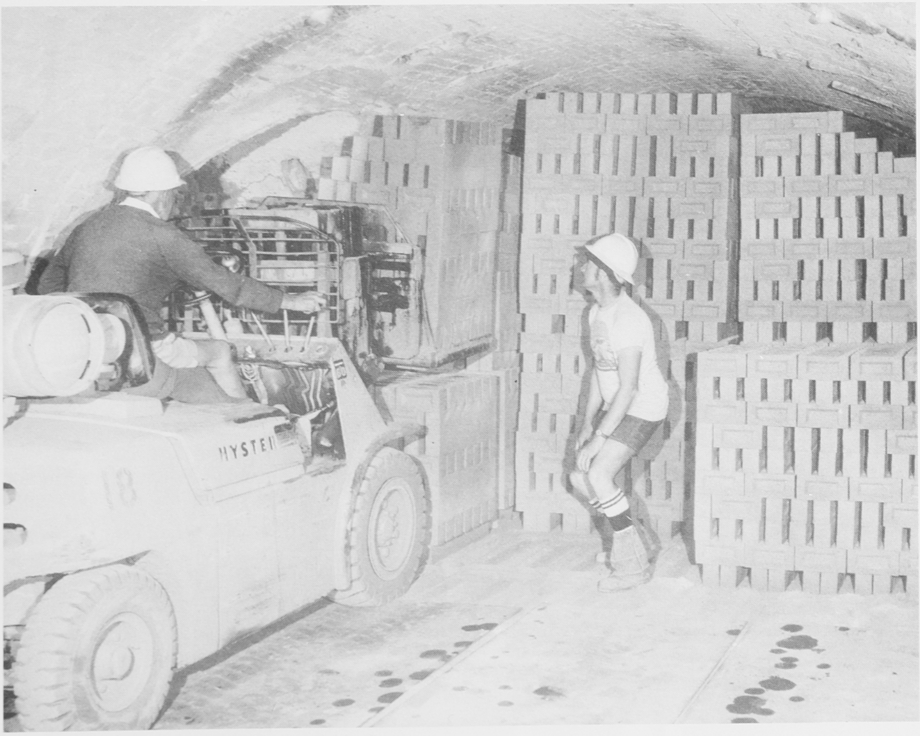
Right: Casting copper ingots at the Cobar Refinery, Lithgow. The Great Cobar Coppermining Company Limited established its refinery at Lithgow because coal was readily available. The ores were smelted and electrolytically refined to separate the gold and silver content. By 1880 there were two copper-smelting works.





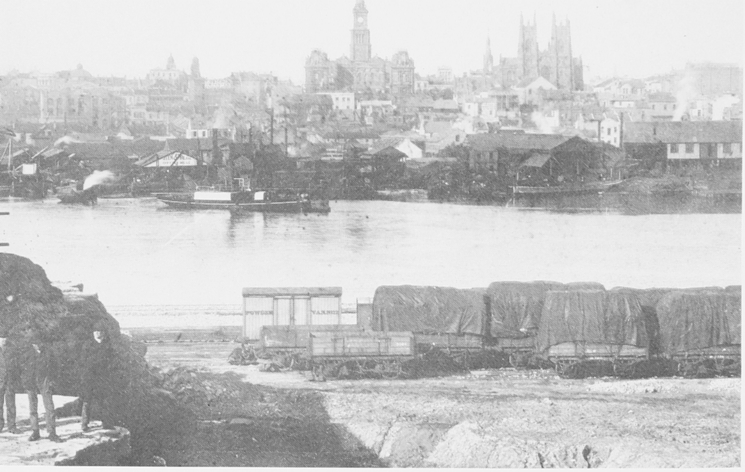
Geological and Mining Museum, N.S.W. Department of Mineral Resources

Above: Brick and Pipe Works, Lithgow Valley, possibly around 1908. The Lithgow Valley Colliery Company Limited traded from about 1871. Good fire, brick and pipe clays and coal were available locally. Bricks were produced from the early years, terracotta wares from 1876, salt-glazed sewer pipes from 1878 and paving tiles before 1882. A pottery section was also developed. The products were sold throughout the State for major private and public developments; bricks especially for railway tunnels and public buildings, and pipes and fittings were in heavy demand as towns throughout the State installed water and sewerage systems.



N.S.W. Public Works Department

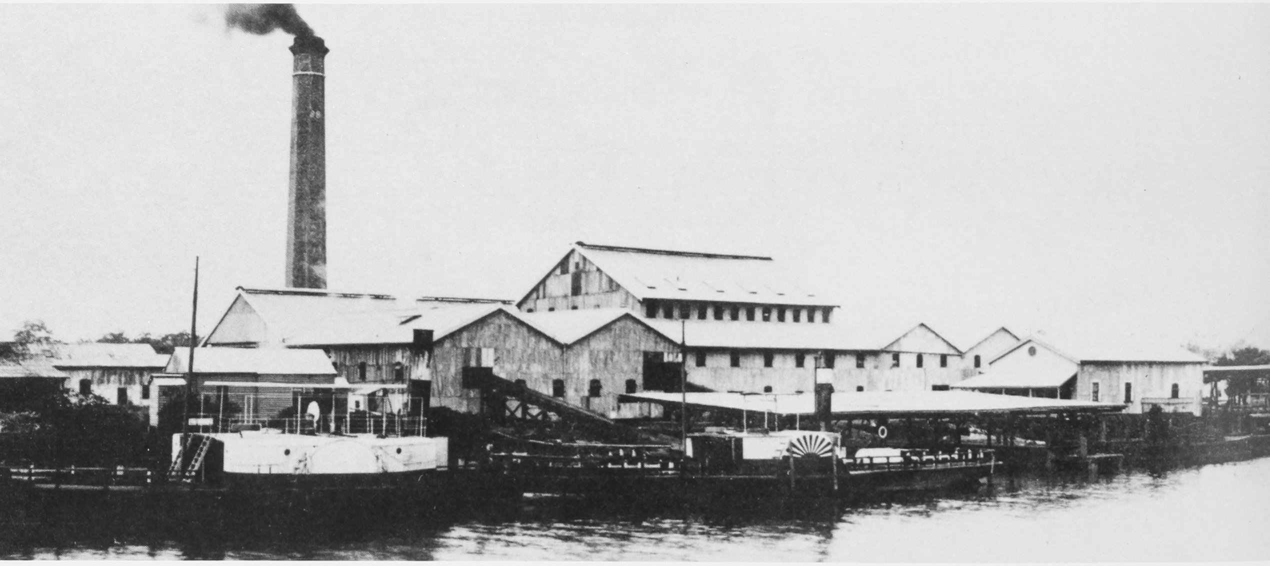
Above: State Brickworks, Homebush, 1980's. The New South Wales Government established the State Brickworks at Homebush Bay in 1911. It was very successful until the depression, and its activities were suspended from the late 1930's. After World War II there was an acute shortage of bricks, so production recommenced to meet the large demand. In 1972, a new semi-automated plant was commissioned at Blacktown to produce a varied range of extruded bricks for modern homes and commercial premises. At Homebush, a dry-press process is used to produce a more traditional product which is in great demand for extensions to older buildings and for other restoration projects.



Left: Darling Harbour and the city from Pyrmont, c.1880. Timber mills dominated the shoreline of Darling Harbour on the edge of the city as logs and finished timber could be easily transported by sea. Timber can be seen floating in front of the W. Burns & Co. Timber Wharf in the centre of the photograph. To the left are the Allen & Walker City Saw Mills. The timber industry was one of the earliest industries to be established in Australia. Timber was used extensively to build houses, ships, bridges, wharves and jetties, and for fuel and other purposes. Behind the timber mills (left to right), is the great dome of the Queen Victoria Building, the original section of the Town Hall (now its vestibule) and St. Andrew's Cathedral.

N.S.W. Government Printer

Below: Sugar mill, Clarence River. In 1869-70, the Colonial Sugar Refining Company (CSR) established two sugar mills on the Clarence River. It adopted a new arrangement by which its centrally situated mills purchased cane from independent farmers, rather than each plantation operating its own mill. This innovation was successful and by 1912, the only 3 mills left in N.S.W. were owned by CSR, although there had been 102 in 1885. For 10 years the Clarence River mills, Southgate and Chatsworth, were managed by Edward Knox, son of an original shareholder and director of CSR. His first-hand experience of milling and his interest in cane growing techniques were very important when, after he became general manager in 1880, CSR expanded into Queensland and to Fiji.



Mitchell Library, State Library of New South Wales

Below: Irrawang Vineyard and Pottery on the Williams River, near Raymond Terrace. Irrawang was established by James King, a merchant and pioneer vigneron, who obtained the 1,928 acre (777 hectare) grant on his arrival in the Colony in 1827. It produced simple household wares, mostly in glazed earthenware, but later with some stoneware, such as plates, bowls, mugs, jugs and butter coolers, and flourished until the early 1850's when the lack of manpower, caused by the goldrush, forced it to close.

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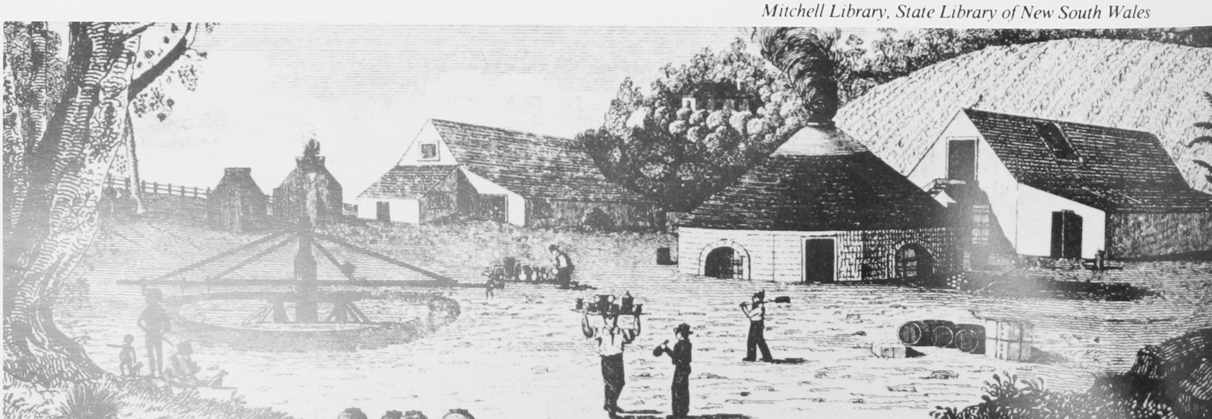

18

MANUFACTURING

Manufacturing plays an important role in the economy of New South Wales and approximately 16 per cent of all employed persons in the State are in the manufacturing industries. In the national context, New South Wales accounts for about 36 per cent of employment and 37 per cent of value added of manufacturing industries in Australia.

The State has a broad manufacturing base with the "Other machinery and equipment" industry subdivision being the largest (with employment of 54,756 and value added of $1,900m in 1984-85) and "Textiles" the smallest (with employment of 9,454 and value added $329m.). In general, manufacturing activity is concentrated in the Sydney, Hunter, and Illawarra Statistical Divisions (the coastal strip running from the Newcastle area in the North to the Wollongong area in the South) and in excess of 90 per cent of manufacturing employment and value added are in these regions.

ASSISTANCE TO INDUSTRY

Assistance to manufacturing industry is provided by both Commonwealth and State governments.

The N.S.W. State Government provides financial and non-financial assistance to promote industrial and commercial development within the state and to encourage the development and application of technology.

The main forms of Commonwealth Government assistance are the customs tariff, import quota restrictions, bounties and subsidies. These are administered by the Australian Customs Service (A.C.S.), which is a statutory authority within the portfolio of the Minister for Industry, Technology and Commerce. Assistance is also provided to Australian industry, particularly the manufacturing industries, through the Commonwealth Government's policy of preference towards local industry in purchasing. Assistance is also given by means of grants to encourage research and development in industry and by other measures such as taxation concessions and government provision of infrastructure.

The *Industries Assistance Commission (I.A.C)* is a statutory authority established under the Industries Assistance Commission Act 1973 to replace the Tariff Board. The Commission reports to the Minister of State administering this Act on matters referred to it by the Minister. It's main functions are to hold inquiries and make reports to the Minister regarding matters of assistance to industries in the primary, secondary, and tertiary sectors of the economy and to report annually on the general structure of industry assistance in Australia and its effects on the economy. The Commission is also responsible for advising the Government on temporary assistance matters. Generally, the Government is required to seek the Commission's advice before it makes changes to the assistance afforded industries. Final decisions on Commission recommendations and policy options rest with the Commonwealth Government.

INDUSTRIAL REGULATION

The New South Wales Department of Industrial Relations is the principal statutory authority responsible for the registration of factories and for ensuring the implementation of legislation concerning the safety, health and welfare of persons engaged in industry in the State.

Manuscript of this chapter prepared in April 1987

INDUSTRIAL DEVELOPMENT

COMMONWEALTH AUTHORITIES

The Department of Industry, Technology and Commerce has primary responsibility for advising the Minister of Industry, Technology and Commerce and implementing Government policy in relation to Australian manufacturing and service industries and technology. It is also a central point of contact for industry, unions, other Commonwealth departments, and State and local governments on matters relating to manufacturing industries.

A forum for advice and consultation on the development and implementation of industry policy is provided through the Australian Manufacturing Council (A.M.C.), and eleven industry councils representing most major industries in the manufacturing sector.

The Australian Industry and Technology Council (A.I.T.C.) is a council of Ministers which provides for regular consultation between the Commonwealth, the States and the Northern Territory on various policy issues affecting industry and technology.

The National Industry Extension Service (N.I.E.S.), a Commonwealth-States initiative, was established by the A.I.T.C. in 1986. N.I.E.S. is a mechanism for delivering Commonwealth and State industry extension services (including technology and demonstration centres, innovation and product development, best management practices and productivity improvement) to assist industry development in all states.

STATE AUTHORITIES

The New South Wales Government's policies on commercial and industrial development are implemented within the administration of the Premier's Department and the Department of Industrial Development and Decentralisation.

The State Government has established an *Office of Special Development* within the Premier's Department to promote and facilitate public and private sector development in New South Wales. The Office provides advice to the Premier on issues relating to the overall industrial and commercial development of the State, together with information on specific development and investment proposals. It facilitates the implementation of projects of special significance to the State, as well as acting in co-operation with the Department of Industrial Development and Decentralisation to promote the expansion of existing industry and the establishment of new ventures. A further responsibility of the Office is the co-ordination of public infrastructure required for major investment proposals.

The Department of Industrial Development and Decentralisation administers State Government policy for the promotion of commercial and industrial development in New South Wales, with particular emphasis on employment-generating investment. In order to achieve a balanced and orderly development and decentralisation, it is necessary to secure co-operation from the private sector, other Government instrumentalities and from the State's overseas representatives. To this end, the Department performs many functions.

The Department of Industrial Development and Decentralisation provides advice and practical assistance to the private sector in the development and decentralisation of industry in the State. It publishes reports dealing with market opportunities for industry in New South Wales and significant development projects in the State, maintains a data bank on industry and commerce in the State, examines the potential of New South Wales companies affiliating or forming joint ventures or technology agreements with overseas companies, administers the State Government's purchasing policies, promotes overseas investment in and business migrants to N.S.W., assists in the co-ordination of major industrial projects and assists in the promotion of regional growth centres.

Apart from playing an advisory role in development and decentralisation matters, the Department of Industrial Development and Decentralisation also provides practical assistance in the form of land sales, technological information and services. For instance, it owns industrial land in selected areas throughout the State which may be purchased at competitive prices.

The Department of Industrial Development and Decentralisation operates the Office of Small Business (O.S.B.), which is responsible for promoting the well-being, growth and development of small businesses in New South Wales. Experienced counsellors are employed to provide both telephone and face-to-face information services and a consultancy service if long term counselling is required. The Office further assists training institutions in designing special programs orientated to small businesses; organises seminars and promotions in conjunction with professional bodies, trade associations, service clubs, etc.

The Technology and Business Efficiency Branch of the Department provides services for the development of advanced technology in industry in New South Wales. Services provided include the provision of information about the latest developments in technology, the publication of a bulletin through which the latest work and achievement in "advanced technology" and their commercial prospects are conveyed, the conduct of technology forums and seminars, the identification of new industrial opportunities, the provision of advice and assistance for the establishment and location of industry and, liaison with industry in technological matters.

The Department of Industrial Development and Decentralisation also administers, within nine of the ten State regions (excluding the Hunter), Industry Development Boards designed to advise the Minister on commercial development in each region.

The N.S.W. Investment Corporation is a statutory authority established in October 1986 to undertake the promotion of private sector economic development in N.S.W. by providing financial assistance together with other business services. The Corporation's activities include participation in joint venture and equity arrangements and provision of loans and loan guarantees. Development financial assistance programs previously administered by the Department of Industrial Development and Decentralisation will be controlled by the new corporation.

INDUSTRIAL RESEARCH AND STANDARDISATION

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is Australia's main research institution. It is governed by a Board appointed by the Governor-General and is responsible to the Minister for Science. Its main role is to plan and carry out a comprehensive program of scientific research on behalf of the Commonwealth for the benefit of the people and industries of Australia. It carries out this research in support of all major areas of Australian economic and community interest excluding defence, nuclear science and clinical medicine, working principally in the physical and biological sciences and technologies. Under the Science and Industry Research Act the Organisation's functions are to carry out scientific research and apply the results; liaise with other countries in scientific research; train scientists and fund certain research projects inside and outside the CSIRO; support research associations representing industries with mutual interests; maintain measurement standards; and publish and disseminate scientific information.

In order to facilitate the dissemination of the Organisation's research results to Australian industry, a company called SIROTECH Ltd was formed in March 1985 in partnership with the Australian Industry Development Corporation (AIDC) and senior members of the Australian business community. SIROTECH Ltd is the Organisation's technology transfer company and its objective is to provide a business-orientated approach to commercialising CSIRO-generated technology. Its major roles are as principal agent and advisor to CSIRO in negotiations on the commercialisation of research results; as manager of CSIRO's joint ventures; and as lead licensee for CSIRO inventions.

In recognition of the need to perform an amount of research with objectives set by industry, the Board has introduced the CSIRO/Manufacturing Industry Collaborative Research Program which was launched in late 1985. Under the Program, companies and industry groups are invited to nominate research projects addressing their major immediate technological problems. Selected projects are then established in the appropriate CSIRO Divisions.

AUSTRALIAN NUCLEAR SCIENCE AND TECHNOLOGY ORGANISATION

The Australian Nuclear Science and Technology Organisation (ANSTO) was established in April 1987 to replace the Australian Atomic Energy Commission (AAEC). ANSTO undertakes research into nuclear science and technology and its peaceful application to industry, medicine, agriculture, science and the community at large. Under the new legislation ANSTO is specifically prohibited from research into the design or production of nuclear weapons or other explosive devices.

STANDARDS ASSOCIATION OF AUSTRALIA

The Standards Association of Australia, which is an independent body incorporated by Royal Charter, is governed by a council comprising representatives of the Commonwealth and State Governments, scientific, professional, and commercial organisations, and private industry. Its funds are obtained from Commonwealth and State Government grants, membership subscriptions, the sale of publications and from quality assurance and certification activities.

The Association is responsible for the preparation, publication and the promotion of the adoption of Australian standards, which are standard specifications for materials and products and also codes of practice. Specifications and codes are prepared and revised periodically in accordance with the needs of the community and government instrumentalities, based on standards evolved and accepted by general consent. Many Australian standards are mandatory, having been specified in Commonwealth and State legislation.

The Association also operates the Standards Mark Scheme for determining compliance with Australian standards, and the Supplier Assessment Scheme.

NATIONAL ASSOCIATION OF TESTING AUTHORITIES, AUSTRALIA

The National Association of Testing Authorities, Australia, is incorporated as a non-profit organisation whose members are the representatives of accredited laboratories. It was originally established, and is still partly funded, by the Commonwealth government to provide competent calibration, measurement and testing resources required by the community and governments. Membership is available to private and government authorities whose laboratories satisfy standards of technical and managerial competence as defined by the Association. Accredited laboratories are registered by the Association on a voluntary basis and they are examined regularly to ensure the maintenance of these standards. The Association also accredits particular tests, measurements, observations and calibrations under specified conditions. Certificates of tests issued by registered laboratories and endorsed by the Association, are widely recognised in Australia and overseas.

DEVELOPMENT OF MANUFACTURING INDUSTRIES

An indication of the large growth in the manufacturing industries in New South Wales since the federation of the Australian colonies in 1901 is given in the first two tables in the next division, "Statistics of Manufacturing Industries". The decline in activity in the industrial depression of the early 1930's is indicated by the statistics for the year 1931-32 in the first table.

Considerable development of the State's manufacturing industries took place in the period after the 1939-45 War. It was fostered by a high rate of population growth, the post-war backlog of consumer demand, the introduction of new materials, machines and techniques; the general prosperity of most primary industries, and a substantial volume of local and overseas capital available for investment. The first areas to expand after the war were the light industries, quickly gearing-up to supply the post-war demand for consumer goods. The basic industries such as iron and steel, non-ferrous metals, cement, heavy engineering and chemicals took longer to plan and carry out their expansion.

One of the major areas of expansion was in the iron and steel industry, with large development programs initiated in both the Newcastle and Wollongong areas (these cities, located to the north and south of Sydney respectively, are near large coalfields).

The 1960's saw a steady expansion in both the size and range of locally manufactured products, especially in the basic non-ferrous metals, heavy engineering, chemicals and petroleum industries. However, in more recent times the level of activity of the manufacturing sector has fluctuated and has undergone some structural change. Changing government policy, pressure from competing imports, and the general state of the world economy are now causing some contraction and rationalisation of manufacturing industries; recent employment decreases in particular industries give some indication of the changes occurring.

STATISTICS OF MANUFACTURING INDUSTRIES

STATISTICS FOR 1967-68 AND EARLIER YEARS

A series of substantially uniform statistics for the manufacturing industries in New South Wales is available for the period from 1901 to 1967-68. The development of the manufacturing industries during this period is illustrated by the following table.

Factories *(a)* in N.S.W.

Year	*Establishments*	*Persons employed (b)*	*Motive power installed*	*Salaries and wages paid (c)*	*Value of production*	*Value of land, buildings, plant, and machinery*
	number	*number*	*'000 hp*	*$m*	*$m*	*$m*
1901	*3,367*	*(d)*61,764	57	9.9	20.0	27.4
1911	*5,039*	*(d)*104,551	213	20.1	38.9	51.3
1920-21	*5,837*	139,211	492	51.2	86.3	119.1
1928-29	*8,465*	180,756	1,028	77.1	147.3	205.5
1931-32	*7,397*	126,355	1,383	45.5	93.3	193.5
1938-39	*9,464*	228,781	1,792	89.2	180.5	240.1
1945-46	*12,287*	310,870	2,349	175.3	306.4	305.7
1950-51	*17,129*	406,965	3,053	422.7	732.2	533.9
1957-58	*22,270*	445,802	5,172	793.4	1,515.7	1,532.0
1962-63	*23,729*	475,249	7,825	1,027.2	2,074.9	2,817.9
1967-68	*24,884*	531,185	11,627	1,498.1	3,131.0	3,828.1

(a) Includes establishments engaged mainly in the generation of electricity or the manufacture of town gas. *(b)* Average during whole year, including working proprietors. *(c)* Excludes drawings of working proprietors. *(d)* Estimated.

Detailed statistics for the manufacturing industries up to 1967-68 are given in Year Book No. 62 and earlier issues.

STATISTICS FOR 1968-69 AND LATER YEARS

Economic Censuses (including those of manufacturing industry) have been conducted on an "integrated" basis since 1968-69.

The statistical reporting units, the Australian Standard Industrial Classification (ASIC), and the standardised data items used in the conduct of the annual manufacturing census and other integrated economic censuses from 1968-69 are described in Appendix B, "Integrated Economic Censuses and Surveys" in the 1985 issue of this Year Book.

The following table summarises the operations of manufacturing establishments in New South Wales since 1968-69.

Manufacturing Establishments: Summary of Operations, N.S.W., 1968-69 to 1984-85

Year	*Number of establishments operating at 30 June (a)*	*Employment (b) (average over whole year)*	*Wages and salaries paid (c) ($m)*	*Value added ($m)*	*Fixed capital expenditure (d) ($m)*
1968-69	13,633	510,733	1,617.8	3,040.8	343.1
1975-76	10,329	453,727	3,670.3	6,371.4	416.3
1980-81 *(e)*	10,334	436,114	5,883.9	10,865.4	991.2
1981-82	10,625	431,783	6,622.7	11,825.3	1,313.9
1982-83	10,471	384,608	6,638.4	11,332.4	1,325.3
1983-84	10,278	363,300	6,555.5	12,713.4	1,061.8
1984-85	10,218	364,805	6,988.3	14,059.8	1,321.8

(a) Excludes the numbers of separately located administrative offices and ancillary units. *(b)* Working proprietors and employees, including those working at separately located administrative offices and ancillary units. *(c)* Includes wages and salaries of employees at separately located administrative offices and ancillary units. Excludes drawings by working proprietors. *(d)* Outlay on fixed tangible assets less disposals. *(e)* Data for 1980-81 and later years excludes single-establishment enterprises with fewer than four persons employed.

The following table summarises the operations of manufacturing establishments in New South Wales.

Manufacturing Establishments *(a)*: Summary of Operations, by Industry Group, N.S.W., 1984-85

Industry group	*ASIC code no.*	*Number of establishments operating at 30 June (b)*	*Employment (c) (average over whole year)*	*Wages and salaries paid (d) ($m)*	*Value added (e) ($m)*	*Fixed capital expenditure (f) ($m)*
Food, beverages and tobacco—						
Meat products	211	180	12,004	204.0	345.1	23.3
Milk products	212	68	4,344	80.9	172.6	11.3
Fruit and vegetable products	213	53	2,657	44.8	91.1	7.3
Margarine and oils and fats, n.e.c.	214	9	1,104	29.1	106.9	14.1
Flour mill and cereal food products	215	54	3,896	80.7	235.7	49.0
Bread, cakes and biscuits	216	349	10,450	173.8	299.0	25.4
Other food products	217	167	9,653	208.9	459.0	22.2
Beverages, malt and tobacco products	218-219	92	7,659	177.4	465.8	52.3
Total Food, beverages etc.		*972*	*51,767*	*999.7*	*2,175.1*	*205.0*
Textiles—						
Textile fibres, yarns and woven fabrics	234	77	5,599	105.3	169.8	19.6
Other textile products	235	133	3,855	71.3	158.8	5.1
Total textiles	*210*	*9,454*	*176.5*	*328.6*	*24.7*	
Clothing and footwear—						
Knitting mills	*244*	51	2,544	39.7	66.0	6.6
Clothing	*245*	677	16,177	202.6	355.6	11.0
Footwear	*246*	62	2,743	37.3	55.0	2.6
Total clothing and footwear	*790*	*21,464*	*279.6*	*476.7*	*20.2*	
Wood, wood products and furniture—						
Wood and wood products	*253*	897	14,965	235.3	476.9	26.9
Furniture and mattresses	*254*	468	8,310	130.5	241.6	7.5
Total wood, wood products, etc.	*1,365*	*23,275*	*365.8*	*718.5*	*34.4*	
Paper, paper products, printing and publishing—						
Paper and paper products	*263*	87	6,664	141.4	295.0	46.4
Printing and allied industries	*264*	1,164	29,346	581.2	1,219.1	82.0
Total paper, paper products, etc.	*1,251*	*36,010*	*722.5*	*1,514.1*	*128.5*	
Chemical, petroleum and coal products—						
Basic chemicals	*275*	76	5,189	139.1	388.0	21.1
Other chemical products	*276*	309	18,818	404.4	1,127.4	68.5
Petroleum refining	*277*	3	1,519	50.6	91.0	11.7
Petroleum and coal products, n.e.c.	*278*	12	349	8.7	23.2	1.8
Total petroleum and coal products	*400*	*25,875*	*602.8*	*1,629.6*	*103.1*	
Non-metallic mineral products—						
Glass and glass products	*285*	19	2,265	n.p.	n.p.	n.p.
Clay products and refractories	*286*	80	4,431	89.2	176.2	10.2
Cement and concrete products	*287*	391	4,975	105.3	216.1	16.8
Other non-metallic mineral products	*288*	66	1,432	n.p.	n.p.	n.p.
Total now-metallic mineral products	*556*	*13,103*	*274.7*	*603.9*	*39.0*	
Basic metal products—						
Basic iron and steel	*294*	106	30,307	699.1	1,337.3	122.0
Basic non-ferrous metals	*295*	25	3,736	82.1	260.3	349.5
Non-ferrous metal basic products	*296*	63	5,647	127.4	258.9	19.9
Total basic metal products	*194*	*39,690*	*908.6*	*1,856.5*	*491.3*	
Fabricated metal products—						
Structural metal products	*314*	558	11,372	204.1	387.9	15.7
Sheet metal products	*315*	368	8,655	153.3	258.4	22.5
Other fabricated metal products	*316*	735	15,537	271.0	472.6	28.8
Total fabricated metal products	*1,661*	*35,564*	*628.4*	*1,118.9*	*67.0*	
Transport equipment—						
Motor vehicles and parts	*323*	266	10,655	185.9	382.3	27.7
Other transport equipment	*324*	155	21,773	454.1	640.2	33.0
Total transport equipment	*421*	*32,428*	*640.0*	*1,022.4*	*60.7*	
Other machinery and equipment—						
Photographic, professional and scientific equipment	*334*	200	3,772	63.5	128.7	7.2
Appliances and electrical equipment	*335*	477	31,436	582.9	1,137.6	64.4
Industrial machinery and equipment	*336*	878	19,548	368.0	633.7	25.9
Total other machinery and equipment	*1,555*	*54,756*	*1,014.3*	*1,900.0*	*97.5*	
Miscellaneous manufacturing—						
Leather and leather products	*345*	79	1,477	22.1	41.7	1.8
Rubber products	*346*	71	2,532	47.2	92.6	3.1
Plastic and related products	*347*	361	12,520	231.1	429.9	40.7
Other manufacturing	*348*	332	4,890	75.1	151.3	4.8
Total miscellaneous manufacturing	*843*	*21,419*	*375.4*	*715.5*	*50.4*	
Total, manufacturing		**10,218**	**364,805**	**6,988.3**	**14,059.8**	**1,321.8**

(a) Excludes single-establishment enterprises with fewer than four persons employed. *(b)* Excludes the numbers of separately located administrative offices and ancillary units. *(c)* Working proprietors and employees, including those working at separately located administrative offices and ancillary units. *(d)* Includes wages and salaries of employees at separately located administrative offices and ancillary units. Excludes drawings by working proprietors. *(e)* Represents turnover plus increase (or less decrease) in the value of stocks, less purchases, transfers in, and selected expenses. *(f)* Outlay on fixed tangible assets less disposals.

MANUFACTURING COMMODITIES

The following table shows details of the quantities of a selection of the commodities manufactured in New South Wales. Commodities produced and used within the same establishment, and commodities produced on commission for non-manufacturing establishments (e.g. wholesale and retail establishments) from materials owned and supplied by the latter establishments, are included.

The statistics shown exclude production by establishments not classified to the manufacturing industries (e.g. wholesalers) and, in general, by those single-establishment manufacturing enterprises with fewer than four persons employed.

Quantities of Selected Articles Produced in Manufacturing Establishments *(a)*, N.S.W.

		Quantity produced		
Articles Produced	*Unit of quantity*	*1983-84*	*1984-85*	*1985-86*
Food and drink—				
Meat				
Mutton *(b)*	'000 kg	38,811	49,564	62,580
Lamb *(b)*	'000 kg	111,367	103,076	108,868
Beef and veal *(b)*	'000 kg	288,731	270,305	318,924
Pig meat *(b) (c)*	'000 kg	59,149	58,686	75,502
Chicken *(d)*	'000 kg	107,272	126,263	128,407
Bacon and ham (incl. canned) *(e)*	tonnes	21,828	20,616	20,476
Whole milk *(f) (g)*	mill litre	940	940	904
Butter *(g) (h)*	tonnes	2,832	2,639	1,220
Cheese *(g)*	tonnes	14,140	13,768	13,048
Frozen dairy foods —				
Ice cream *(i)*	'000 litre	65,501	69,927	72,617
Other *(j)*	'000 litre	n.p.	22,320	27,274
Vegetables (canned or bottled) *(k)*	tonnes	42,541	42,081	40,990
Flour, white (incl. sharps)	tonnes	564,922	545,380	532,511
Confectionery —				
Chocolate	tonnes	12,589	11,053	13,266
Other	tonnes	19,584	19,400	18,711
Aerated and carbonated waters *(l)*	'000 litre	321,672	340,539	379,225
Textiles, clothing and footwear—				
Yarn of discontinuous synthetic and regenerated fibres	tonnes	2,591	2,483	3,032
Woven fabric *(m)*-				
Wool *(n)*	'000 sq m	1,096	1,465	1,949
Cotton	'000 sq m	11,323	13,118	12,192
Man-made fibres	'000 sq m	53,669	61,517	69,109
Men's and boys' — shirts	'000	14,847	16,503	15,742
— sports coats *(o)*	number	56,439	73,945	63,909
— sports trousers *(o)*	number	1,611,916	2,094,774	2,010,639
Footwear *(p)*—				
Adults, male *(q)*	'000 prs	2,476	2,729	2,863
Adults, female *(q)*	'000 prs	2,461	2,909	2,816
Children's'000 prs	439	606	822	
Timber, sawn (Australian grown) *(r)*	'000 cu m	865	909	952
Bricks, clay *(s) (t)*	'000	695,446	721,315	746,648
Tiles, roofing (terra cotta and concrete) *(s) (u)*	'000 sq m	6,331	6,529	7,036
Ready mixed concrete	'000 cu m	3,544	4,003	4,587
Concrete blocks *(s) (v)*	'000	19,086	21,307	22,458
Paints, enamels and clears *(w)*—				
Architectural and decorative	'000 litre	38,331	42,488	39,601
Industrial	'000 litre	r17,330	16,937	19,321
Raw steel	'000 tonnes	5,109	5,120	5,607
Cooking stoves, ovens and ranges (domestic, electric) *(x)*	number	51,576	81,681	84,593
Electric motors, total	number	1,222,693	1,034,527	932,222
Soap and synthetic detergents for personal toilet use	tonnes	28,141	29,262	30,033
Synthetic detergents, non-abrasive—				
Other than for personal toilet use	tonnes	156,568	156,074	163,387
Polyethylene film *(y)*	tonnes	37,612	36,813	38,057
Synthetic resins (dry weight, excludes plasticisers)	tonnes	r299,848	264,914	238,430
Meat and bone meals (excl. blood meal)	tonnes	84,215	81,063	90,551
Other prepared stock and poultry foods	tonnes	1,053,667	1,069,024	1,091,673

(a) Excludes production by single-establishment enterprises with fewer than four persons employed. *(b)* "Bone-in" weight basis. Includes meat produced on farms. *(c)* Includes meat later converted to bacon and ham. *(d)* Dressed weight of whole birds, pieces and giblets. Comprises broilers, fryers, and roasters. *(e)* Cured weight. Pressed ham and canned bacon and ham included on a bone-in weight basis. *(f)* Intake by factories. Includes the whole milk equivalent of farm cream intake. *(g) Source*: Australian Dairy Corporation. *(h)* Includes direct butteroil production. *(i)* Aerated milk-based confections containing 10 per cent or more butterfat; includes ice cream combined with other confections. *(j)* Includes aerated milk based confections containing less than 10 per cent butterfat; and milk-based mixes and ices. *(k)* Includes pickled vegetables (other than "pickles" and chutney). *(l)* Canned and bottled. *(m)* Mixtures are included with the predominant fibre. *(n)* Includes blanketing and rug material. *(o)* Boys' sports coats and trousers excluded prior to 1984-85. *(p)* Excludes thongs, and gumboots. *(q)* Refers to size 2 second series and above. Source: Forestry Commission of N.S.W. Includes logs peeled or sliced for veneers. *(s)* Includes production in Australian Capital Territory. *(t)*For structural purposes. Prior to 1984-85 includes bricks for other than structural purposes (including pavers). *(u)* Flat surface measure. *(v)* In terms of 400 mm x 200 mm x 200 mm. *(w)* Includes primers, undercoats, varnishes, clear plastic coatings, and two-pack type coatings. Excludes heavy duty coatings, bituminous paints, and marine coatings. *(x)* Excludes small portable units and grill boilers. *(y)* Includes low and high density film.

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Manufacturing Establishments: Summary of Operations by Industry Class* (Catalogue No. 8202.0); *Manufacturing Establishments: Details of Operations by Industry Class* (8203.0); *Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size* (8204.0); *Manufacturing Commodities — Principal Articles Produced* (8303.0).

A.B.S. Publications (N.S.W. Office): *Census of Manufacturing Establishments: Summary of Operations by Industry Class* (8201.1); *Census of Manufacturing Establishments: Small Area Statistics, by Industry* (8203.1); *Census of Manufacturing Establishments: Selected Items of Data by Employment Size-Group and Industry Class* (8204.1); *Pocket Year Book of New South Wales* (1302.1); *Monthly Summary of Statistics* (1305.1).

Other Publications: Annual Reports of the Australian Manufacturing Council, Australian Industry Development Corporation, Australian Industrial Research and Development Incentives Board, CSIRO, Department of Industry, Technology and Commerce, Industries Assistance Commission, New South Wales Department of Industrial Relations, the New South Wales Department of Industrial Development and Decentralisation, and the National Association of Testing Authorities.

19

EXTERNAL TRADE

OVERSEAS TRADE

In terms of the *Commonwealth of Australia Constitution Act 1900*, the Commonwealth Parliament is responsible for legislation relating to trade and commerce with other countries and among the States of Australia. Matters relating to trade and commerce are dealt with by the Department of Trade, the Department of Industry, Technology and Commerce, and the Department of Primary Industry.

The *Department of Trade* is responsible for developing and maintaining Australia's position as a world trading nation through international trade and commodity commitments and agreements, developing export markets, and formulating proposals for the Government on Australia's international trade policy and trading objectives. It is also responsible for matters related to the commercial development, marketing, and export of minerals, including uranium and hydrocarbon fuels. It conducts a Trade Commissioner Service, maintaining officers at various overseas centres.

The *Department of Industry, Technology and Commerce* administers Commonwealth government policy relating to manufacturing and tertiary industries. It examines requests from industries for protection and advises whether reference to the Industries Assistance Commission (IAC) is warranted. It co-operates with the Department of Trade in international tariff negotiations and the Australian system of tariff preferences for developing countries. The Department is also responsible for the collection of customs and excise duties and for the detailed administration of various controls over the import and export of goods.

The *Department of Primary Industry* administers Commonwealth government policy relating to production and marketing arrangements for primary products. It co-operates with the Department of Trade in the negotiation of international trade and commodity agreements, in participation in international conferences, and in the administration of provisions relating to primary products in existing international agreements. It also administers the legislation under which Commonwealth marketing boards operate, and maintains continuous contact with the boards on marketing policy matters. The Department is responsible for the inspection, grading, and labelling of primary produce submitted for export. Further information about the activities of the Department is given in Chapter 16 "Agriculture".

The Commonwealth Government also operates various Commissions, Corporations and Boards, whose functions include trade development, assistance and regulation. Details of these organisations, and of bilateral trade agreements between Australia and other countries, can be found in the Australian Year Book.

The *New South Wales Government* has representatives engaged in export promotion in London, Los Angeles, and Tokyo. The *New South Wales Trade Development Board* (an advisory body to the Government) and the New South Wales Office for Trade Development (an executive body) were established in December 1986, replacing the former New South Wales Overseas Trade Authority. These organisations are responsible for promoting, encouraging and co-ordinating trade between New South Wales and overseas countries.

Manuscript of this section prepared in April 1987.

COMPILING STATISTICS OF OVERSEAS TRADE

The statistics of overseas trade in this chapter have been compiled from information contained in import and export entries submitted by importers and exporters (or their agents) to the Australian Customs Service as required by the *Customs Act 1901*. They are based on the "Australian Import Commodity Classification" and the "Australian Export Commodity Classification".

Import statistics for New South Wales correspond to goods for which import entries were lodged with Australian Customs Service Offices in this State. The statistics do not necessarily equate to goods discharged, consumed, or used in this State.

The value of imports is recorded on a free on board (f.o.b.) basis (i.e. the charges and expenses involved in delivering the goods from the place of exportation to Australia are excluded). The recorded value is known as the customs value and the system of valuation is currently based on the General Agreement on Tariffs and Trade (GATT) rules on customs valuation.

Export statistics for New South Wales correspond to goods for which the final stage of production or manufacture occurred in New South Wales, and exclude re-exported goods finally shipped from New South Wales.

The value of exports is recorded by one of two methods, depending on the circumstances under which goods are exported. Goods actually sold to overseas buyers prior to shipment are valued at the price equivalent to the f.o.b. price at the Australian port of shipment. Goods shipped on consignment are valued at an estimated f.o.b. Australian port of shipment price.

OVERSEAS TRADE STATISTICS OF NEW SOUTH WALES

New South Wales is Australia's largest trading state. In 1985-86 the State handled some 44 per cent of imports ($15,149m) and 23 per cent of exports ($7,370m), mainly at ports located at Sydney, Newcastle, Port Kembla, Port Botany and Kurnell, and at Kingsford Smith airport.

The following table summarises New South Wales and Australian import and export trade for the period 1981-82 to 1985-86.

Overseas Trade *(a)* of New South Wales and Australia 1981-82 to 1985-86

	N.S.W. trade		*Australian trade*		*N.S.W. trade as a proportion of Australian trade*	
Year	*Imports $m*	*Exports $m*	*Imports $m*	*Exports $m*	*Imports per cent*	*Exports per cent*
1981-82	9,236	4,188	23,005	18,816	40	22
1982-83	8,611	4,963	21,806	20,819	39	24
1983-84	9,773	5,176	23,540	23,346	42	22
1984-85	12,478	6,674	29,049	28,973	43	23
1985-86	15,149	7,370	34,691	31,920	44	23

(a) Export statistics shown in this table exclude the value of re-exported goods.

Imports

Details of New South Wales imports for the years 1982-83 to 1985-86 are shown later in this chapter in the table "Imports into N.S.W.: 1982-83 to 1985-86". The main products imported into New South Wales in 1985-86, and their sources are summarised as follows:

(a) *Office Machines and Automatic Data Processing Equipment ($1,771m).*
(Includes computer equipment, $1,134m; parts and accessories for office machines and computer equipment, $419m; and office machines, $218m. These imports were mainly from the United States of America, $745m; Japan, $580m; United Kingdom, $97m; and Ireland, $53m).

(b) *Road Vehicles ($1,072m)*
(Includes passenger vehicles, $500m; motor vehicles for the transport of goods, $329m; and parts for tractors, passenger vehicles and other road vehicles, $163m. These imports were mainly from Japan, $746m; Federal Republic of Germany, $111m; United States of America, $55m; and the United Kingdom, $47m)

(c) *Electrical Machinery, Apparatus and Appliances, ($828m)*
(Includes electrical apparatus for making and breaking electrical circuits, $174m; household type electrical and non-electrical equipment, $130m; and electrical apparatus for medical purposes and radiological apparatus, $85m. These imports were mainly from Japan, $234m; United States of America, $168m; the United Kingdom, $67m; and the Federal Republic of Germany, $68m).

(d) *General Industrial Machinery and Equipment, and Machine Parts ($744m)*
(Includes non-electric parts and accessories of machinery, $209m; pumps, liquid elevators, compressors, fans, centrifuges and purifying apparatus, $171m; mechanical handling equipment and parts, $143m. These imports were mainly from the United States of America, $187m; Japan, $165m; Federal Republic of Germany, $94m; and the United Kingdom, $65m).

(e) *Machinery Specialised for Particular Industries ($730m)*
(Includes engineering and contractors plant or equipment and parts, $220m; machines or equipment specialised for particular industries, and parts, $188m; printing and bookbinding machinery and parts, $89m; and textile and leather machinery and parts, $87m. These imports were mainly from the United States of America, $175m; Japan, $160m; Federal Republic of Germany, $119m; and the United Kingdom, $66m).

New South Wales' major import trading partners over the past decade have been Japan, the United States of America, and the United Kingdom. In 1985-86, these three countries accounted for some 54 per cent of New South Wales imports, comprising $3,626m, $3,327m, and $1,185m respectively.

Exports

Details of New South Wales exports for the years 1982-83 to 1985-86 are shown later in this chapter in the table titled "Exports of N.S.W. Origin: 1982-83 to 1985-86". The main products exported from New South Wales in 1985-86 (excluding re-exports) and their destinations are summarised as follows:

(a) *Coal, Coke and Briquettes ($2,105m)*
(Includes coal, briquettes and similar solid fuels from coal, $2,085m; and coke and retort carbon, $20m. These products were mainly exported to Japan, $1,062m; Republic of Korea, $301m; Taiwan, $166m; and the Netherlands, $83m.)

(b) *Textile Fibres and their Wastes ($1,054m)*
(Includes wool, $736m; and cotton, $315m. These products were mainly exported to Japan, $300m; Italy, $110m; Republic of Korea, $94m; China, $89m; and France, $84m).

(c) *Cereals and Cereal Preparations, excluding rice ($912m)*
(Includes wheat, $792m; barley, $36m; and cereal preparations, $27m. These products were mainly exported to Egypt, $138m; China, $135m; U.S.S.R., $95m; Iraq, $94m; and Republic of Korea, $77m).

(d) *Iron and Steel ($298m)*
(Includes universals, plates and sheets, $132m; ingots and other primary forms, $67m; bars, rods, angles, shapes and sections, $64m; and hoop and strip, $10m. These products were mainly exported to China, $68m; New Zealand, $64m; United States of America, $39m; and Pakistan, $22m).

(e) *Meat and Meat Preparations ($287m)*
(Includes fresh, chilled or frozen meat and edible meat offals, $266m. These products were mainly exported to United States of America, $134m; Japan, $39m; Canada, $16m, and Papua New Guinea, $15m.)

New South Wales' major export trading partners over the past decade have been Japan, New Zealand and the United States of America, with the Republic of Korea becoming more significant in recent years. In 1985-86, these countries accounted for about 46 per cent of New South Wales exports, comprising $1,933m, $445m, $427m, and $563m respectively.

Imports into N.S.W.: 1982-83 to 1985-86
($m)

Division No.	*Description(a)*	*1982-83*	*1983-84*	*1984-85*	*1985-86p*
00	Live animals chiefly for food	16.5	19.3	21.2	45.8
01	Meat and meat preparations	9.6	8.9	13.0	9.7
02	Dairy products and birds eggs	21.9	25.7	26.8	30.5
03	Fish, crustaceans and molluscs, and preparations thereof	113.0	129.4	155.3	167.7
04	Cereal grains and cereal preparations	15.4	20.5	26.6	29.5
05	Vegetables and fruit	85.6	102.5	127.3	123.0
06	Sugar, sugar preparations and honey	6.9	7.8	12.2	11.8
07	Coffee, tea, cocoa, spices and manufactures thereof	55.9	65.5	93.2	119.4
08	Feeding stuff for animals (not including unmilled cereals)	11.0	11.2	14.1	11.8
09	Miscellaneous edible products and preparations	22.4	31.5	38.7	68.4
11	Beverages	60.4	63.7	83.7	125.7
12	Tobacco and tobacco manufactures	53.2	51.1	48.7	62.6
21	Hides, skins and furskins, raw	0.2	0.3	0.3	0.5
22	Oilseeds and oleaginous fruit	7.8	13.3	6.9	3.7
23	Crude rubber (including synthetic and reclaimed)	12.8	15.2	18.3	19.0
24	Cork and wood	76.7	107.8	144.8	147.2
25	Pulp and waste paper	21.1	29.8	22.8	33.5
26	Textile fibres (other than wool tops) and their wastes (not manufactured into yarn or fabric)	25.9	30.4	40.0	43.2
27	Crude fertilisers and crude minerals (excluding coal, petroleum, precious stones)	40.1	45.1	43.8	63.4
28	Metalliferous ores and metal scrap	9.2	14.4	14.6	17.3
29	Crude animal, vegetable materials, n.e.s.	19.2	22.0	26.3	35.3
32	Coal, coke and briquettes	3.1	1.8	0.7	0.9
33	Petroleum, petroleum products and related materials	746.6	576.4	657.8	609.1
34	Gas, natural and manufactured	0.2	0.1	0.5	0.2
41	Animal oils and fats	0.5	0.3	0.9	0.6
42	Fixed vegetable oils and fats	17.8	21.2	24.2	20.4
43	Animal and vegetable oils and fats, processed, and waxes of animal or vegetable origin	13.2	21.3	23.7	18.4
51	Organic chemicals	244.8	310.1	331.6	350.0
52	Inorganic chemicals	59.4	71.8	77.8	96.0
53	Dyeing, tanning and colouring materials	33.3	40.1	47.3	53.4
54	Medicinal and pharmaceutical products	139.2	165.2	211.5	285.3
55	Essential oils and perfume materials: toilet, polishing and cleansing preparations	73.2	87.6	105.8	143.1
56	Fertilisers, manufactured	3.2	17.1	23.6	12.9
57	Explosives and pyrotechnic products	2.4	3.3	3.9	4.7
58	Artificial resins and plastic materials, and cellulose esters and ethers	141.9	189.7	222.9	266.3
59	Chemical materials and products, n.e.s.	99.7	120.1	146.5	172.2
61	Leather, leather manufactures, n.e.s. and dressed furskins	14.9	26.4	34.3	44.2
62	Rubber manufactures, n.e.s.	86.2	107.8	139.0	158.7
63	Cork and wood manufactures (excluding furniture)	40.3	49.4	61.6	67.2
64	Paper, paperboard and articles of paper pulp, of paper or of paperboard	194.2	247.3	360.0	367.2
65	Textile yarn, fabrics, made-up articles, n.e.s. and related products	388.4	488.9	575.3	672.3
66	Non-metallic mineral manufactures, n.e.s.	175.8	189.5	231.1	271.7
67	Iron and steel	124.3	139.2	149.2	159.3
68	Non-ferrous metals	47.0	42.5	48.7	73.0
69	Manufactures of metal, n.e.s.	212.8	245.8	316.3	372.5
71	Power generating machinery and equipment	208.0	195.7	222.5	269.7
72	Machinery specialised for particular industries	353.0	398.5	559.4	729.7
73	Metalworking machinery	66.0	58.2	92.0	126.5
74	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s.	451.6	432.0	543.8	743.9
75	Office machines and automatic data processing equipment	671.7	928.3	1,390.6	1,770.2
76	Telecommunications and sound recording and reproducing apparatus and equipment	455.9	521.3	609.3	720.8
77	Electrical machinery, apparatus and appliances, n.e.s. and electrical parts thereof (including non-electrical counter-parts n.e.s., of electrical household type equipment)	445.4	493.8	682.3	828.2
78	Road vehicles (including air cushion vehicles)	519.8	641.0	850.6	1,072.2
79	Other transport equipment	96.7	88.7	190.2	276.6
81	Sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	18.2	20.2	30.2	37.8
82	Furniture and parts thereof	48.9	59.7	80.8	109.1
83	Travel goods, handbags and similar containers	47.5	55.8	73.7	78.0
84	Articles of apparel and clothing accessories	168.7	174.9	211.3	207.4
85	Footwear	59.8	68.3	74.7	91.5
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	214.7	259.2	334.9	422.3
88	Photographic apparatus, equipment and supplies and optical goods, n.e.s.: watches and clocks	201.5	223.2	267.3	347.5
89	Miscellaneous manufactured articles, n.e.s.	625.8	732.1	880.2	1,112.5
9A	Commodities and transactions of merchandise trade, n.e.c.	290.6	444.0	613.0	797.4
9B	Non-merchandise	119.7	254.7	228.1	—
	Total imports	**8,610.7**	**10,027.7**	**12,478.4**	**15,149.2**

(a) Divisions of the Australian Import Commodity Classification.

Exports of N.S.W. Origin *(a)*: 1982-83 to 1985-86 ($m)

Division No.	*Description(b)*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
00	Live animals chiefly for food	18.3	22.6	24.9	27.3
01	Meat and meat preparations	291.1	220.6	205.9	286.8
02	Dairy products and birds eggs	9.9	13.1	11.9	9.8
03	Fish, crustaceans and molluscs, and preparations thereof	5.4	7.9	10.4	16.9
04	Cereal grains and cereal preparations	359.9	599.4	1,035.3	*(f)*912.0
05	Vegetables and fruit	25.1	23.1	29.6	38.7
06	Sugar, sugar preparations and honey	9.4	8.5	10.4	10.4
07	Coffee, tea, cocoa, spices and manufactures thereof	4.8	5.3	3.9	4.6
08	Feeding stuff for animals (not including unmilled cereals)	2.3	3.5	4.3	5.6
09	Miscellaneous edible products and preparations	11.0	13.5	15.5	17.3
11	Beverages	8.4	9.7	8.2	9.2
12	Tobacco and tobacco manufactures	6.0	6.5	7.4	5.6
21	Hides, skins and furskins, raw	53.3	65.1	64.1	88.1
22	Oilseeds and oleaginous fruit	0.4	2.3	4.1	16.9
23	Crude rubber (including synthetic and reclaimed)	1.1	2.1	0.1	0.1
24	Cork and wood	4.9	3.3	2.5	3.0
25	Pulp and waste paper	1.9	2.4	4.2	4.9
26	Textile fibres (other than wool tops) and their wastes (not manufactured into yarn or fabric)	591.9	577.5	796.9	1,053.6
27	Crude fertilisers and crude minerals (excluding coal, petroleum, precious stones)	7.3	4.8	4.3	5.2
28	Metalliferous ores and metal scrap	133.1	158.1	157.9	202.5
29	Crude animal, vegetable materials, n.e.s.	14.6	15.4	15.7	13.7
32	Coal, coke and briquettes	1,507.0	1,489.2	1,948.2	2,104.7
33	Petroleum, petroleum products and related materials *(c)*	260.9	304.4	301.6	284.1
34	Gas, natural and manufactured	*(d)*	*(d)*	*(d)*	*(d)*
41	Animal oils and fats	7.2	12.3	10.1	11.7
42	Fixed vegetable oils and fats	0.8	0.8	3.8	5.4
43	Animal and vegetable oils and fats, processed, and waxes of animal or vegetable origin	3.2	3.6	3.5	8.1
51	Organic chemicals	8.2	11.2	13.5	13.1
52	Inorganic chemicals	21.4	19.9	28.5	26.0
53	Dyeing, tanning and colouring materials	9.7	9.3	12.6	12.3
54	Medicinal and pharmaceutical products	52.4	58.9	56.6	65.0
55	Essential oils and perfume materials: toilet, polishing and cleansing preparations	23.3	25.3	25.4	30.8
56	Fertilisers, manufactured	0.9	1.6	2.9	1.4
57	Explosives and pyrotechnic products	0.2	0.2	0.3	0.3
58	Artificial resins and plastic materials, and cellulose esters and ethers	11.2	17.7	13.3	16.6
59	Chemical materials and products, n.e.s.	17.2	17.8	18.6	21.9
61	Leather, leather manufactures, n.e.s. and dressed furskins	25.9	32.7	39.8	46.9
62	Rubber manufactures, n.e.s.	2.6	3.9	4.4	4.1
63	Cork and wood manufactures (excluding furniture)	1.8	1.8	1.7	2.8
64	Paper, paperboard and articles of paper pulp, of paper or of paperboard	18.8	21.1	28.0	24.6
65	Textile yarn, fabrics, made-up articles, n.e.s. and related products	19.3	21.9	25.9	27.9
66	Non-metallic mineral manufactures, n.e.s.	35.1	43.8	37.2	38.4
67	Iron and steel	320.3	224.6	256.1	298.2
68	Non-ferrous metals	126.5	126.2	104.9	98.4
69	Manufactures of metal, n.e.s.	65.0	70.8	65.3	70.0
71	Power generating machinery and equipment	10.7	10.2	11.9	12.3
72	Machinery specialised for particular industries	47.7	50.9	47.2	57.2
73	Metalworking machinery	14.3	11.6	10.7	10.3
74	General industrial machinery and equipment, n.e.s. and machines parts, n.e.s.	50.2	55.9	59.7	61.1
75	Office machines and automatic data processing equipment	22.7	22.6	47.3	47.3
76	Telecommunications and sound recording and reproducing apparatus and equipment	31.5	12.5	11.9	11.8
77	Electrical machinery, apparatus and appliances, n.e.s. and electrical parts thereof (including non-electrical counter-parts n.e.s., of electrical household type equipment)	42.2	48.8	52.3	65.9
78	Road vehicles (including air cushion vehicles)	27.2	23.2	38.6	34.1
79	Other transport equipment	33.2	36.2	36.3	51.9
81	Sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	3.3	4.7	4.6	3.9
82	Furniture and parts thereof	5.7	8.6	7.0	8.5
83	Travel goods, handbags and similar containers	1.0	1.5	3.0	2.2
84	Articles of apparel and clothing accessories	5.6	5.1	5.0	8.2
85	Footwear	1.5	2.0	1.4	2.2
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	64.9	62.2	50.0	49.7
88	Photographic apparatus, equipment and supplies and optical goods, n.e.s.: watches and clocks	11.1	10.4	12.0	12.7
89	Miscellaneous manufactured articles, n.e.s.	67.1	71.2	103.1	109.3
9A	Commodities and transactions of merchandise trade n.e.c.*(e)*	366.6	439.2	781.9	880.2
9B	Non-merchandise	50.9	67.3	100.2	—
	Total exports	**4,956.3**	**5,228.5**	**6,674.2**	**7,370.3**

(a) Excludes re-exported goods. *(b)* Divisions of the Australian Export Commodity Classification. *(c)* Includes the value of fuels loaded for operating purposes by foreign owned aircraft and ships operating through Australian ports. *(d)* Included in Division 9A. *(e)* Includes Division 34. *(f)* Excludes rice goods.

IMPORT AND EXPORT PRICES

Movements in the prices obtained for Australia's overseas imports and exports, are indicated by the import and export price indexes shown in the following tables.

For imports, the groups shown relate to commodities defined in terms of selected sections of the *Australian Import Commodity Classification (AICC).*

For exports, the index groups shown relate to commodities defined in terms of selected divisions of the *Australian Export Commodity Classification (AECC).* Index numbers shown for financial years are simple averages of monthly index numbers.

Import Price Index, Australia
Base: 1981-82 = 100

Group description	*1983-84*	*1984-85*	*1985-86*
All groups	114	126	144
Selected AICC Sections			
Food and live animals chiefly for food	123	139	157
Beverages and tobacco	129	140	165
Crude materials, inedible, except fuels	108	121	136
Mineral fuels, lubricants, and related materials	104	117	101
Animal and vegetable oils, fats, and waxes	136	146	111
Chemicals and related products	107	115	133
Manufactured goods classified chiefly by material	114	127	151
Machinery and transport equipment	119	130	158
Miscellaneous manufactured articles	119	131	156

Export Price Index, Australia
Base: 1974-75 = 100

Group description	*1983-84*	*1984-85*	*1985-86*
All groups	208	223	235
Selected AECC Divisions			
Meat, meat preparations	298	314	340
Dairy products, eggs	179	180	194
Cereals, cereal preparations	132	143	141
Sugar, sugar preparations	80	70	78
Textile fibres and their wastes	222	237	247
Metalliferous ores and metal scrap	249	270	283
Coal, coke, briquettes	251	273	299
Iron and steel	157	173	181
Non-ferrous metals	193	200	203

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Australian Export Commodity Classification* (Catalogue No. 1203.0); *Australian Import Commodity Classification* (1204.0); *Exports, Australia, Monthly Summary Tables* (5432.0), *Exports, Australia* (5434.0); *Imports, Australia, Monthly Summary Tables* (5433.0); *Imports, Australia* (5435.0); *Customs and Excise Revenue, Australia Annual Summary Tables* (5427.0); *Export Price Index, Australia* (6405.0).

A.B.S. Publications (N.S.W. Office): *Monthly Summary of Statistics* (1305.1), *Pocket Year Book of New South Wales* (1302.1).

Overseas trade statistics are also available on microfiche in a variety of tabular formats. Each tabular format covers commodities exported or imported at various levels of aggregation.

A number of information papers have also been issued which explain the basis on which data are compiled and the formats in which the data are published. These are: *Foreign Trade Statistics: An overview* (5481.0); *Overseas Shipping and Air Cargo: An Overview* (9252.0); *Confidentiality and the Release of Foreign Trade and Shipping Statistics: Microfiche Service* (5483.0); *Foreign Trade and Shipping Statistics Magnetic Tape Service* (5484.0); and *Foreign Trade Statistics: Special Returns Service* (5480.0).

Other Publications: Annual Reports of the Export Development Grants Board, Export Finance and Insurance Corporation, Australian Overseas Projects Corporations, Industries Assistance Commission, Department of Trade and Resources, Department of Industry and Commerce, the New South Wales Office for Trade Development, and the Bureau of Customs; *Port Statistics* and Annual Report of the Maritime Services Board of New South Wales; and the *Monthly Statistical Bulletin* issued by the Reserve Bank of Australia.

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INTERNAL TRADE

RETAIL TRADE

Statistics of the structure and pattern of retail trade in Australia are available principally from periodic censuses of retail establishments. The most recent census was conducted in respect of the year ended 30 June 1986. This was the ninth Retail census undertaken in Australia. The last census was in respect of 1979-80. At the time of preparing this manuscript, detailed statistics for the 1985-86 census are not available but preliminary results at a broad level are shown in an appendix to this Year Book.

The 1968-69 and later retail censuses have been conducted throughout Australia as part of the program of integrated economic data collections of the Australian Bureau of Statistics (see Appendix B "Integrated Economic Censuses and Surveys" shown in the 1985 edition of this Year Book). Within the program, data from each industry sector conform to the same basic conceptual standards thereby allowing comparative analysis between and across different industry sectors. The results of these retail censuses are therefore comparable with the economic data collections undertaken annually for the mining, manufacturing and electricity and gas industries, and periodically for the wholesale trade and construction industries.

Prior to the 1985-86 Retail Census, data covering the operations of selected service establishments was collected as part of the censuses of retail establishments. The service industries included in the 1979-80 Retail Census were motion picture theatres, cafes and restaurants, hotels, etc. (mainly drinking places), accommodation establishments, licensed clubs, hairdressing and beauty salons, and laundries and dry cleaners.

These industries as well as motor vehicle hire establishments, travel agency services, photographic services n.e.c. and tourist attractions, are being covered by the 1986-87 Services Industries Surveys.

A second series of Services Industries Surveys for the year 1987-88, will cover real estate agents, technical services, legal and accounting services and other business services.

In periods between censuses, movements in the value of retail sales, by broad industry and commodity groups, are estimated from monthly and quarterly sample surveys of retail establishments, as described in the sub-division "Intercensal Estimates of Retail Sales" below.

SCOPE AND COVERAGE OF THE 1979-80 RETAIL CENSUS

The 1979-80 Census of Retail Establishments and Selected Service Establishments includes establishments classified to the Retail Trade Sub-division of ASIC together with establishments classified to "selected service" classes from the ASIC division "Recreation, Personal and Other Services".

Further details on the scope and coverage of this census are contained in Appendix B "Integrated Economic Censuses and Surveys" in the 1985 issue of the New South Wales Year Book and on page 520 of the 1986 issue of the New South Wales Book.

Manuscript of this chapter prepared in July 1987.

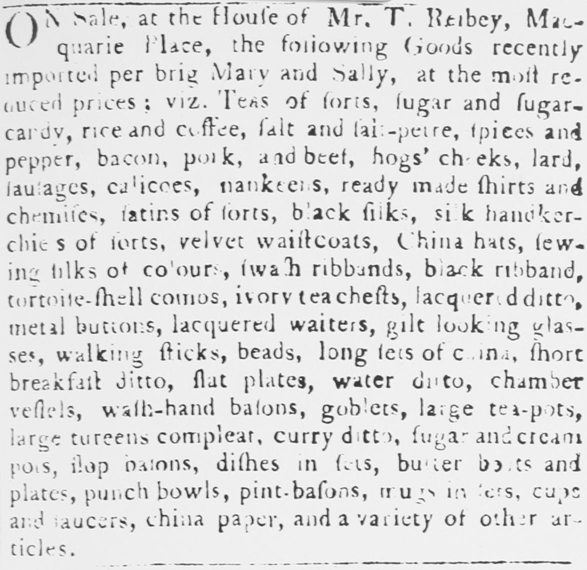
Results of the 1979-80 Retail Census

The next table summarises the operations of retail establishments in New South Wales as compiled from the 1979-80 Census of Retail Establishments and Selected Service Establishments. The table excludes data for single establishment retail enterprises with a turnover of less than $50,000. Total figures for the State for these small retail businesses (excluding bread and milk vendors), as compiled from Census results, were: Number of establishments 11,096; Employment at the end of June 1980 (including working proprietors) 18,958 persons; Wages and salaries paid $19,556,000; Turnover $284,015,000.

Retail Establishments *(a)*: Summary of Operations, by Industry Class, N.S.W., 1979-80

Industry class and group	*ASIC code*	*Establishments in operation at end of June (b)*	*Persons employed at end of June (c)*	*Wages and salaries paid (d)*	*Turnover (e)*	*Value added (f)*	*Fixed capital expenditure less disposals*
				$'000	$'000	$'000	$'000
Department and general stores —							
Department stores	4814	147	35,125	257,314	1,550,917	407,414	14,260
General stores	4815	129	3,025	17,211	142,792	32,280	88
Total department and general stores	*481*	*276*	*38,150*	*274,525*	*1,693,709*	*439,694*	*14,347*
Clothing, fabrics and furniture stores —							
Men's and boys' wear stores	4843	980	4,531	32,844	236,790	70,281	(-)6,709
Women's and girls' wear stores	4844	2,937	13,567	76,278	572,300	159,487	5,026
Footwear stores	4845	795	3,477	22,021	164,322	46,903	1,336
Shoe repairers	4846	91	232	1,705	5,538	3,505	458
Fabrics and household textile stores	4847	774	3,456	18,903	131,447	39,303	482
Floor coverings stores	4848	278	1,340	11,045	127,609	24,180	3,066
Furniture stores	4849	583	3,421	27,346	290,331	58,918	3,395
Total clothing, fabrics and furniture stores	*484*	*6,438*	*30,024*	*190,141*	*1,528,336*	*402,578*	*7,054*
Household appliance and hardware stores —							
Domestic hardware stores	4853	560	2,574	14,165	118,861	32,969	895
Watchmakers and jewellers	4854	750	3,640	24,707	173,708	61,063	1,110
Music stores	4855	398	1,361	8,353	96,735	29,458	629
Household appliance stores	4856	995	7,171	66,056	611,931	151,647	12,683
Electric appliance repairers n.e.c.	4857	199	1,293	10,473	31,166	16,705	516
Total household appliance and hardware stores	*485*	*2,902*	*16,039*	*123,755*	*1,032,402*	*291,842*	*15,833*
Motor vehicle dealers, petrol and tyre retailers —							
New motor vehicle dealers and motor vehicle repairers (except smash repairers)	4861	3,045	28,626	263,005	3,726,060	620,471	23,797
Used motor vehicle and parts dealers	4862	859	4,257	38,629	624,838	90,522	3,041
Service stations	4864	3,027	16,017	79,134	*(g)*1,159,740	166,291	6,868
Smash repairers	4865	1,302	7,877	57,547	220,154	95,219	3,320
Motor cycle dealers	4866	221	1,044	7,353	104,849	21,764	771
Boat and caravan dealers	4867	320	1,336	10,460	149,898	29,071	1,908
Tyre and battery retailers	4868	525	3,120	28,043	236,751	55,391	1,782
Total motor vehicle dealers petrol and tyre retailers	*486*	*9,299*	*62,277*	*484,171*	*6,222,289*	*1,078,729*	*41,486*
Food stores —							
Grocers, confectioners and tobacconists	4881	5,515	50,079	232,028	2,784,241	390,593	33,982
Butchers	4882	2,718	9,374	60,437	573,359	128,152	6,142
Fruit and vegetable stores	4883	1,244	4,815	13,400	200,636	39,815	3,115
Liquor stores	4884	613	2,570	18,283	307,803	61,235	4,131
Bread and cake stores	4885	683	3,783	18,132	70,170	31,301	2,022
Fish shops, take away food and milk bars	4886	3,221	18,018	54,994	410,940	130,250	9,686
Total food stores	*488*	*13,994*	*88,639*	*397,273*	*4,347,148*	*781,345*	*59,077*
Other retailers —							
Pharmacies	4891	1,967	11,314	64,744	481,309	142,408	4,876
Photographic equipment stores	4892	216	814	6,797	53,395	13,974	359
Sports and toy stores	4893	953	3,182	15,840	163,538	40,851	2,252
Newsagents, stationers, and booksellers	4894	1,519	8,407	45,966	408,164	115,330	5,660
Secondhand goods dealers	4895	495	1,306	7,142	68,736	20,368	581
Nurserymen and florists	4896	542	2,098	9,235	63,635	21,360	1,698
Retailers, n.e.c.	4897	537	1,696	8,102	62,868	20,290	947
Total other retailers	*489*	*6,229*	*28,817*	*157,826*	*1,301,645*	*374,581*	*16,374*
Total, retail establishments	**48**	**39,138**	**263,946**	**1,627,691**	**16,125,529**	**3,368,769**	**154,173**

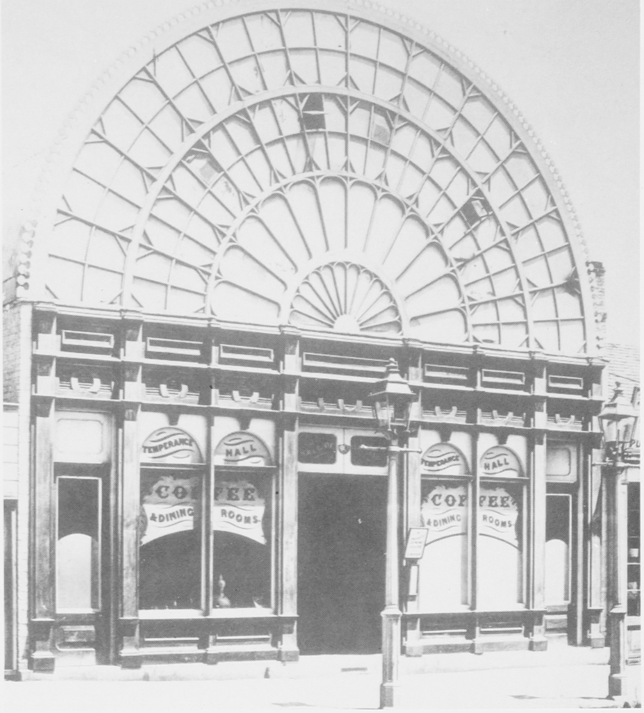
(a) Excludes all bread and milk vendors and single establishment retail enterprises with turnover of less than $50,000. *(b)* Excludes the numbers of separately located administrative offices and ancillary units. *(c)* Full-time and part-time working proprietors and employees, including those working at separately located administrative offices and ancillary units. Unpaid helpers are excluded. *(d)* Excludes drawings by working proprietors. Includes wages and salaries of employees at separately located administrative offices and ancillary units. *(e)* Sales of goods (retail and wholesale) and all other operating revenue from outside the enterprise. *(f)* Turnover plus increase (or less decrease) in the value of stocks less purchases, transfers in and selected expenses. *(g)* For service stations which sell petrol on commission the commission earned is included in "turnover" but the sales themselves are not included.



ON Sale, at the Houſe of Mr. T. Reibey, Macquarie Place, the following Goods recently imported per brig Mary and Sally, at the moſt reduced prices; viz. Teas of ſorts, ſugar and ſugar-candy, rice and coffee, ſalt and ſalt-petre, ſpices and pepper, bacon, pork, and beef, hogs' cheeks, lard, ſauſages, calicoes, nankeens, ready made ſhirts and chemiſes, ſatins of ſorts, black ſilks, ſilk handkerchiefs of ſorts, velvet waiſtcoats, China hats, ſewing ſilks of colours, ſwaſh ribbands, black ribband, tortoiſe-ſhell combs, ivory tea cheſts, lacquered ditto, metal buttons, lacquered waiters, gilt looking glaſſes, walking ſticks, beads, long ſets of china, ſhort breakfaſt ditto, flat plates, water ditto, chamber veſſels, waſh-hand baſons, goblets, large tea-pots, large tureens compleat, curry ditto, ſugar and cream pots, ſlop baſons, diſhes in ſets, butter boats and plates, punch bowls, pint-baſons, mugs in ſets, cups and ſaucers, china paper, and a variety of other articles.

he Sydney Gazette and New South Wales Advertiser, 10 November 1810

bove: In the early years of the Colony, the purchase of upplies additional to the Government store rations was only ossible at irregular intervals. Ships arriving from overseas ere welcomed because they brought food, tools, clothing, ther household articles and alcohol. In the early years, ilitary officers purchased supplies from the captains of the ips and then resold them at large profit to themselves. ater, individual merchants such as Thomas Reibey estabshed trading activities often using their own vessels to btain supplies. Thomas Reibey married Mary Haydock who ad arrived as a penniless convict. After he died, Mary eibey took over and expanded the trading business and ened a warehouse in George Street. In 1815 she particiated in the foundation of the Bank of N.S.W. (now Westpac).

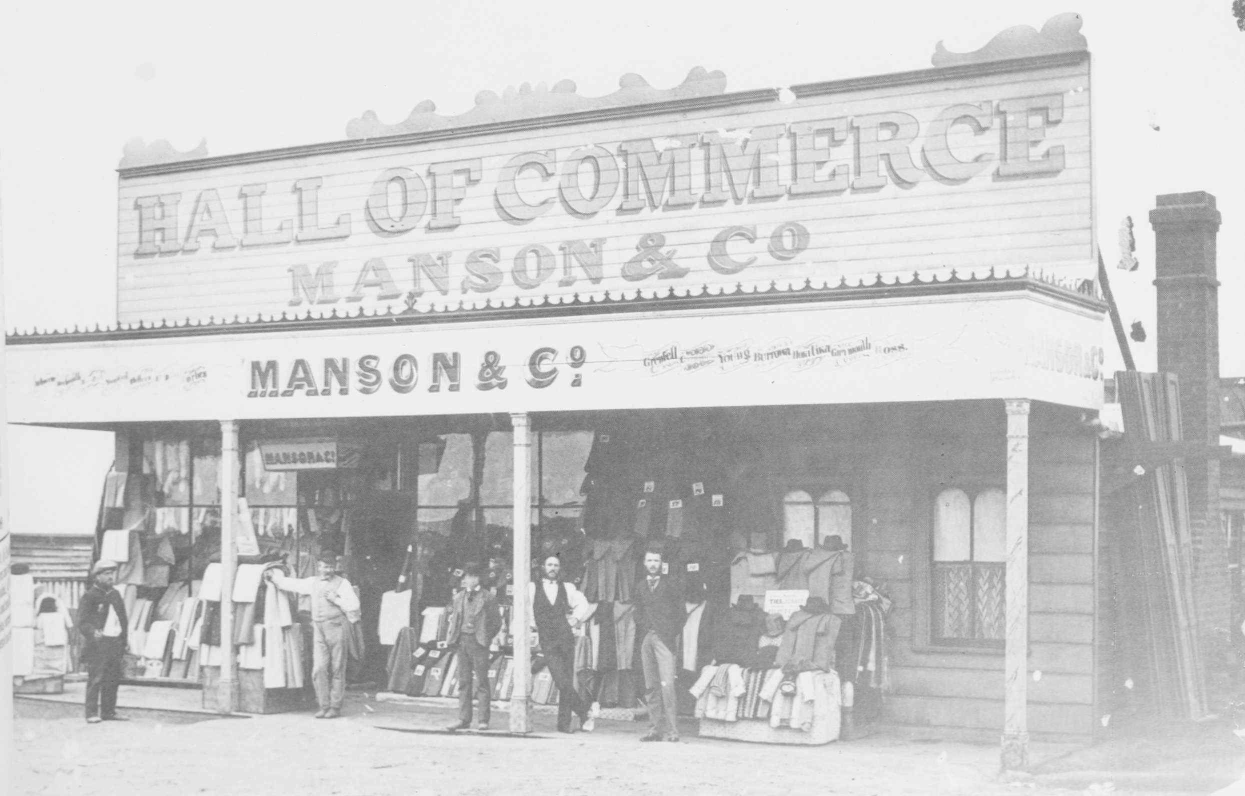


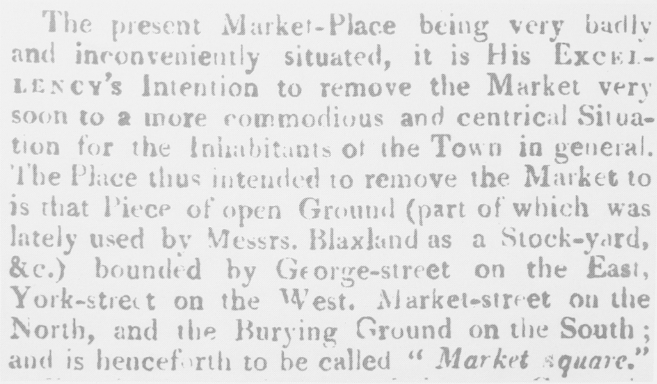
Mitchell Library, State Library of New South Wales

Above: Temperance Hall, Sydney. The Temperance Movement began in Sydney as early as 1845, and in 1857 the N.S.W. Alliance was instituted with 14,600 members. By the late 1870's, membership had grown to 60,000 and two halls, both in Pitt Street opposite the Congregational Church, had been built. The hall shown, built in 1858 of corrugated iron, was mostly leased for meetings of other societies when the new hall was built in 1872.

Below: Large soft-goods store 1870s, Clarke Street, Hill End, Central N.S.W. Photograph from the Holtermann Collection.

Mitchell Library, State Library of New South Wales

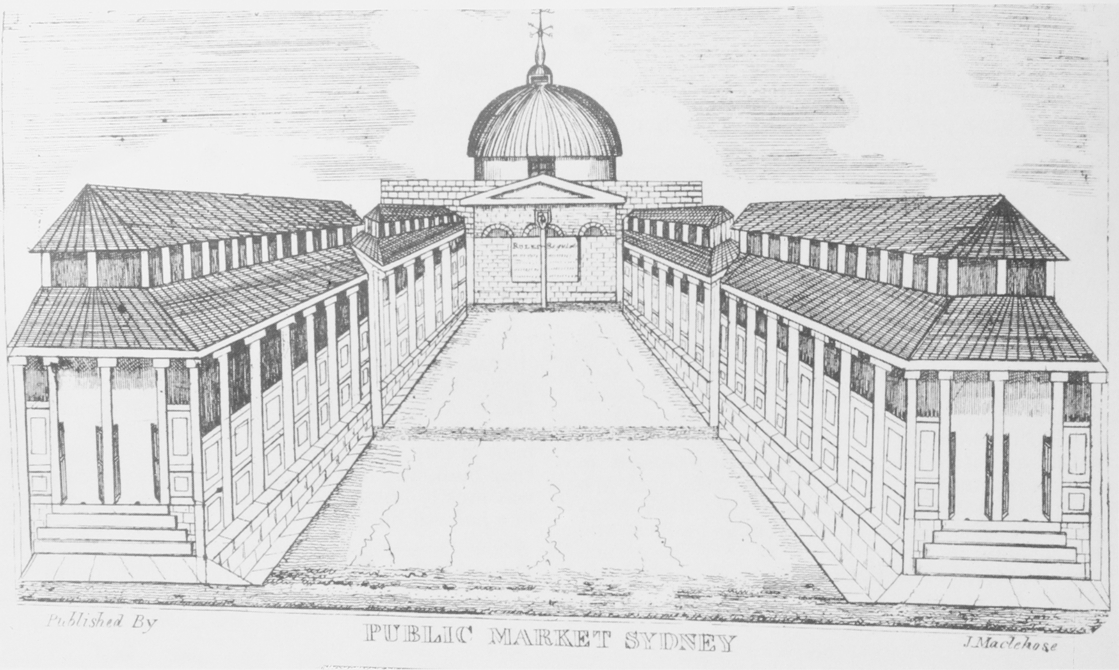




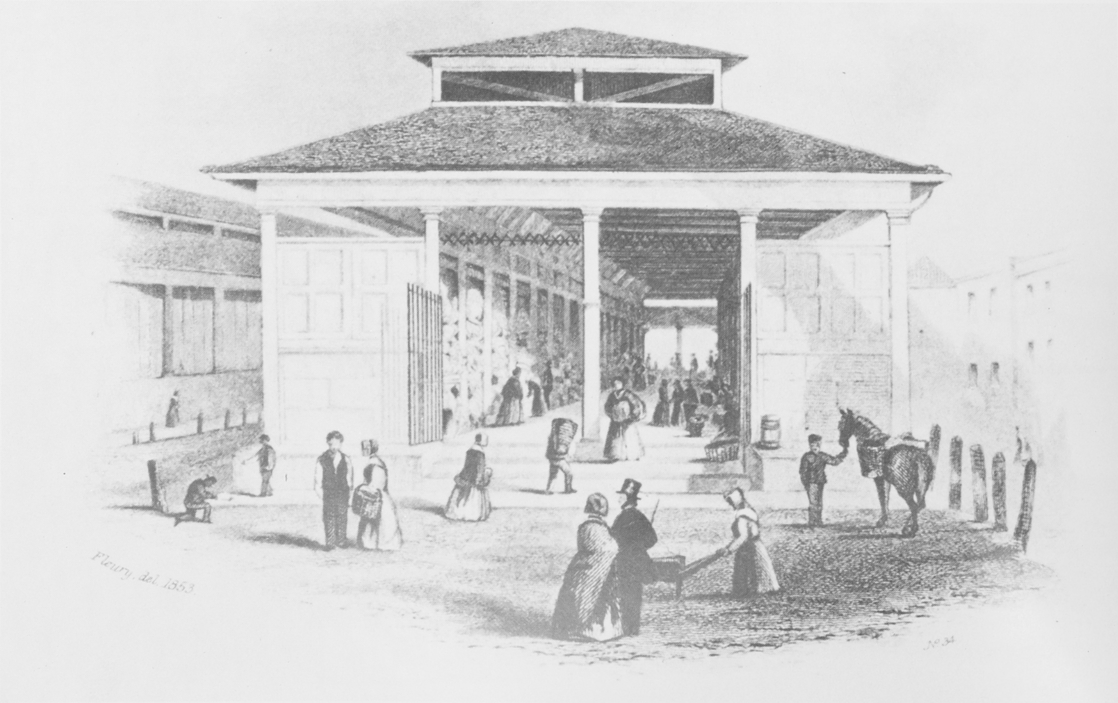
The present Market-Place being very badly and inconveniently situated, it is His EXCELLENCY's Intention to remove the Market very soon to a more commodious and centrical Situation for the Inhabitants of the Town in general. The Place thus intended to remove the Market to is that Piece of open Ground (part of which was lately used by Messrs. Blaxland as a Stock-yard, &c.) bounded by George-street on the East, York-street on the West. Market-street on the North, and the Burying Ground on the South; and is henceforth to be called "*Market square.*"

In 1810 Governor Macquarie ordered that public markets be built between George and York Streets (left). The buildings became dilapidated by 1831, when Governor Bourke ordered that they be replaced. The site was then occupied by the old City Police Court and the rebuilt Public Markets. The Markets were divided into four sections — butcher's meat and poultry, retail fruit, wholesale fruit and potatoes. The illustrations show various aspects of these Markets in 1839 (centre), 1853 (bottom), and 1870 (opposite page, top). The markets continued to trade until 1891 when the council decided to demolish and rebuild.

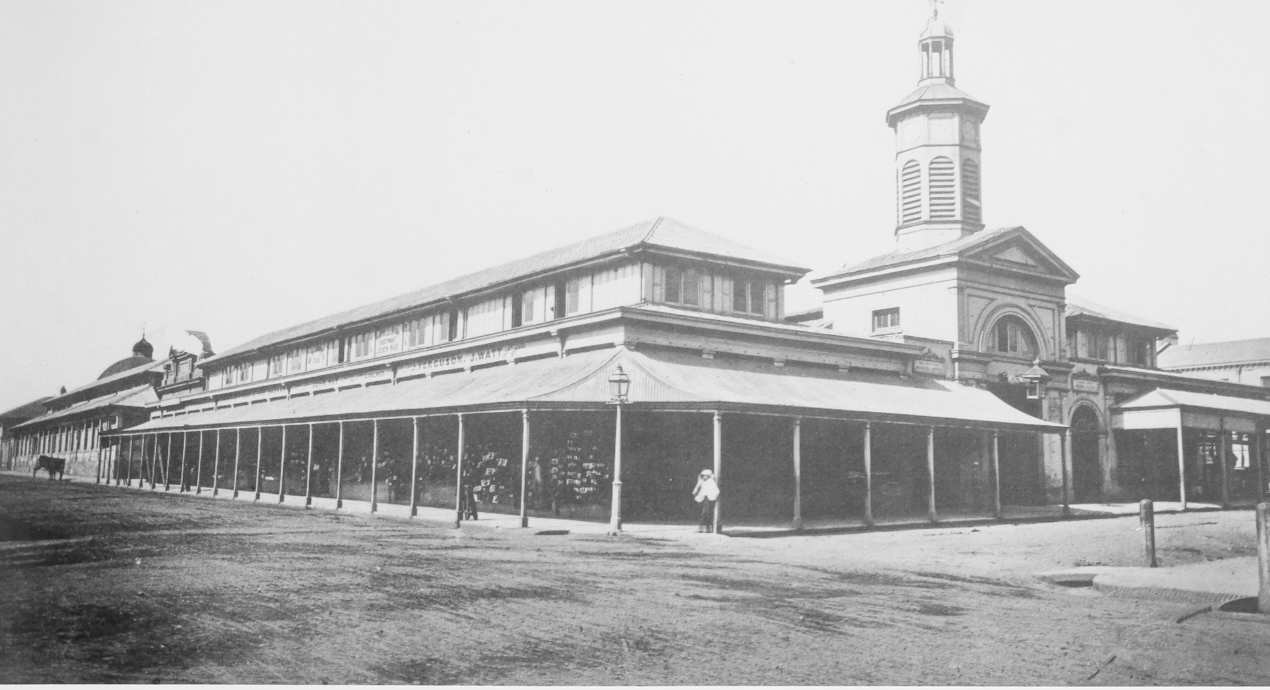
The Sydney Gazette and New South Wales Advertiser, 6 October 1810



Mitchell Library, State Library of New South Wales. From "Picture of Sydney, 1839", by J. Macklehose.



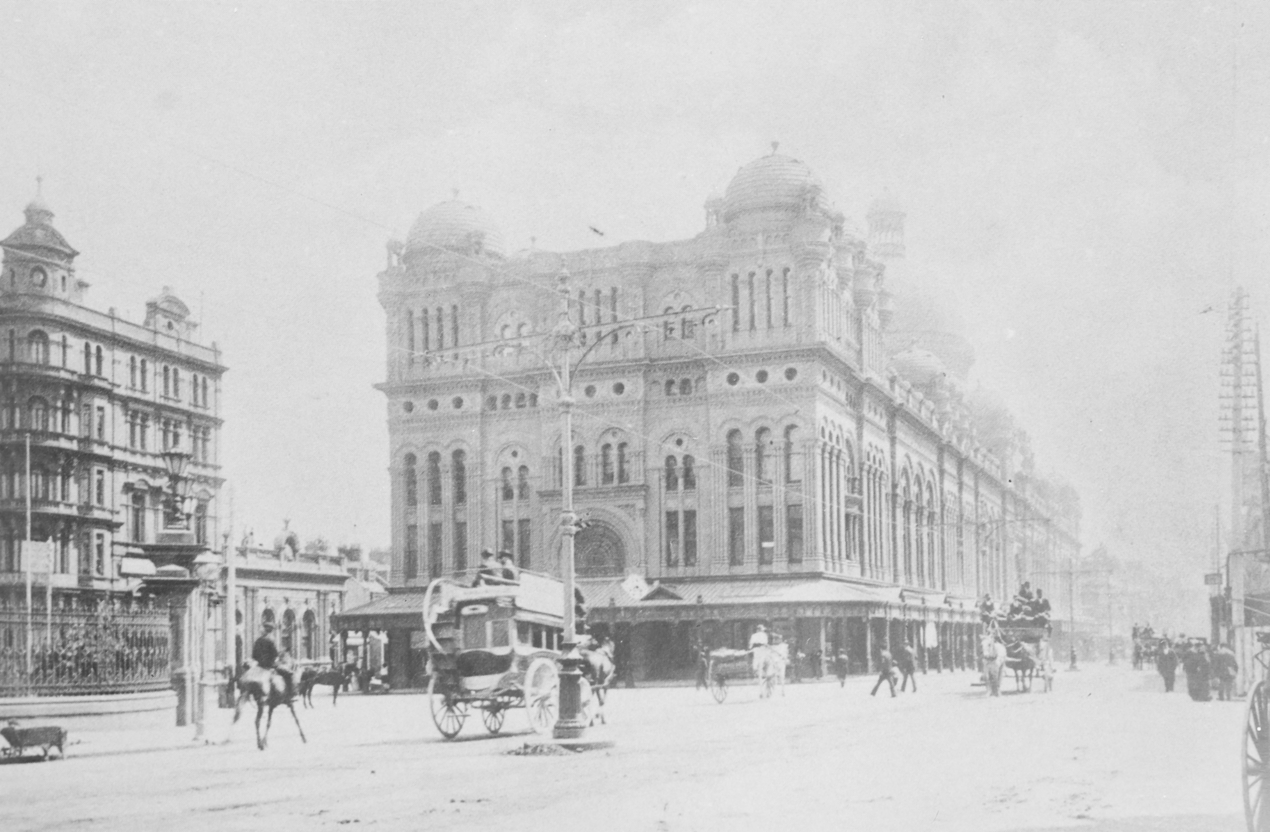
Source: The Australian Keepsake, 1855 by Sands & Kenny

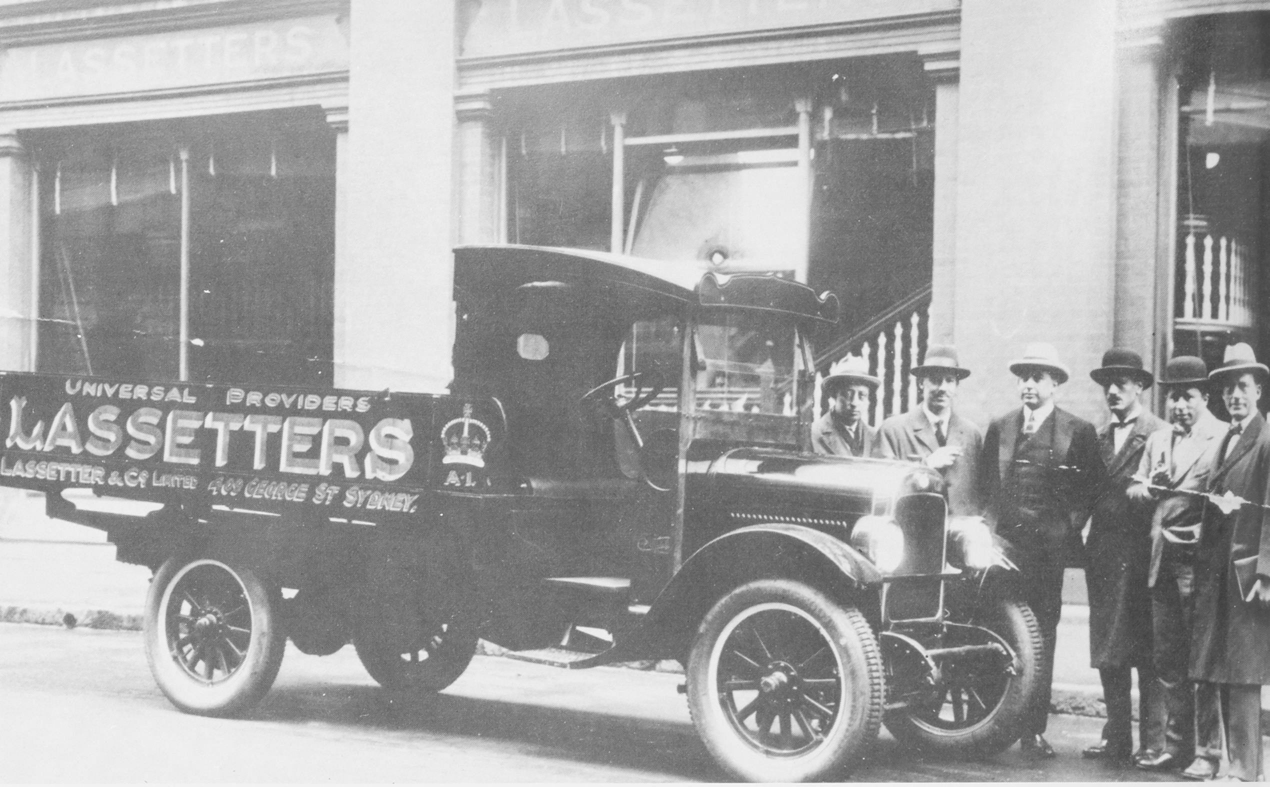


N.S.W. Government Printer

Below: The Romanesque style Queen Victoria Markets were designed by City Architect, George McRae, and reopened in 1898. It was called the Queen Victoria Building because it was planned and built at the height of Queen Victoria's reign. The three-storey building consisted of a market, shops, arcade, "coffee-palace", hall, art gallery, hotel, dining rooms and ballroom. A major feature was the central copper dome surrounded by at least 20 smaller domes. The building enjoyed only limited success and due to congestion with traffic in the city, the markets were relocated after only 12 years to join the Hay and Corn Market (known as the 'Belmore Markets') at the Haymarket. These markets later became known as Paddy's Market and were moved half a mile west, beyond George Street.

Mitchell Library, State Library of New South Wales



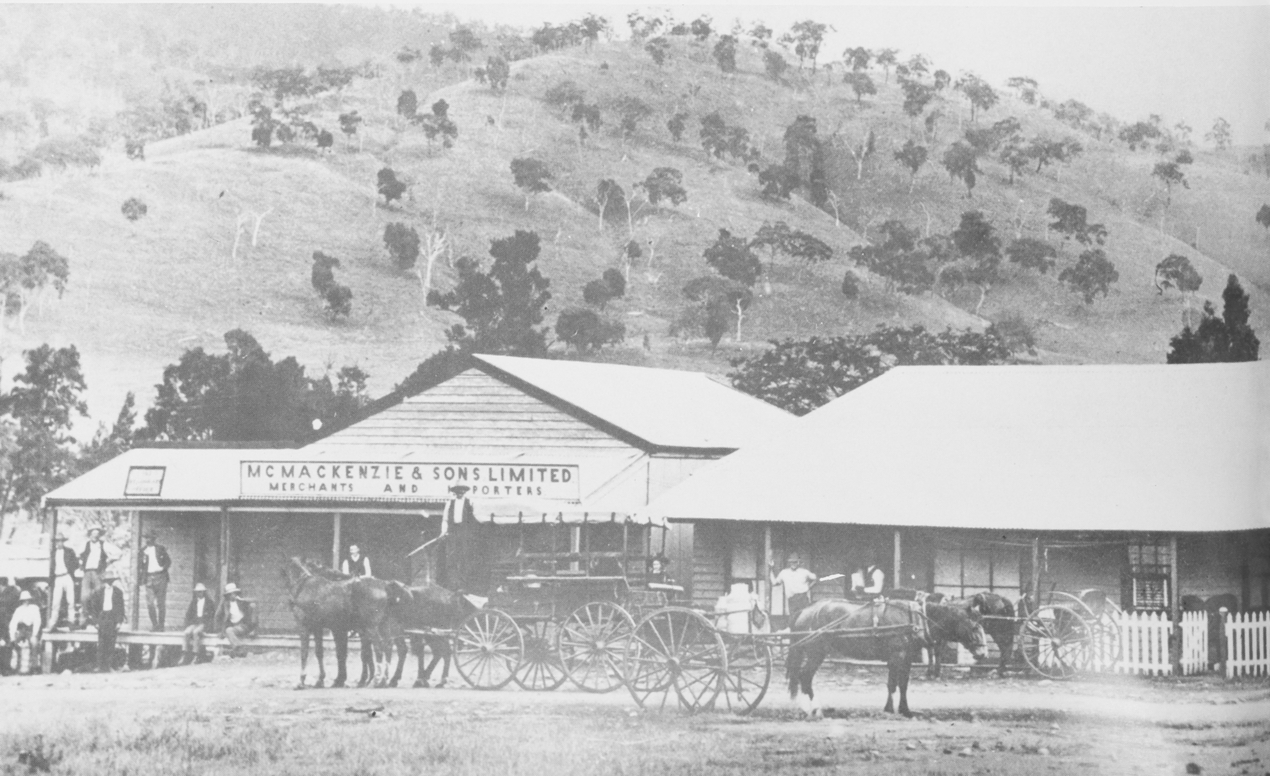

UNIVERSAL PROVIDERS
LASSETTERS
LASSETTER & Co LIMITED 409 GEORGE ST SYDNEY.
A·1.

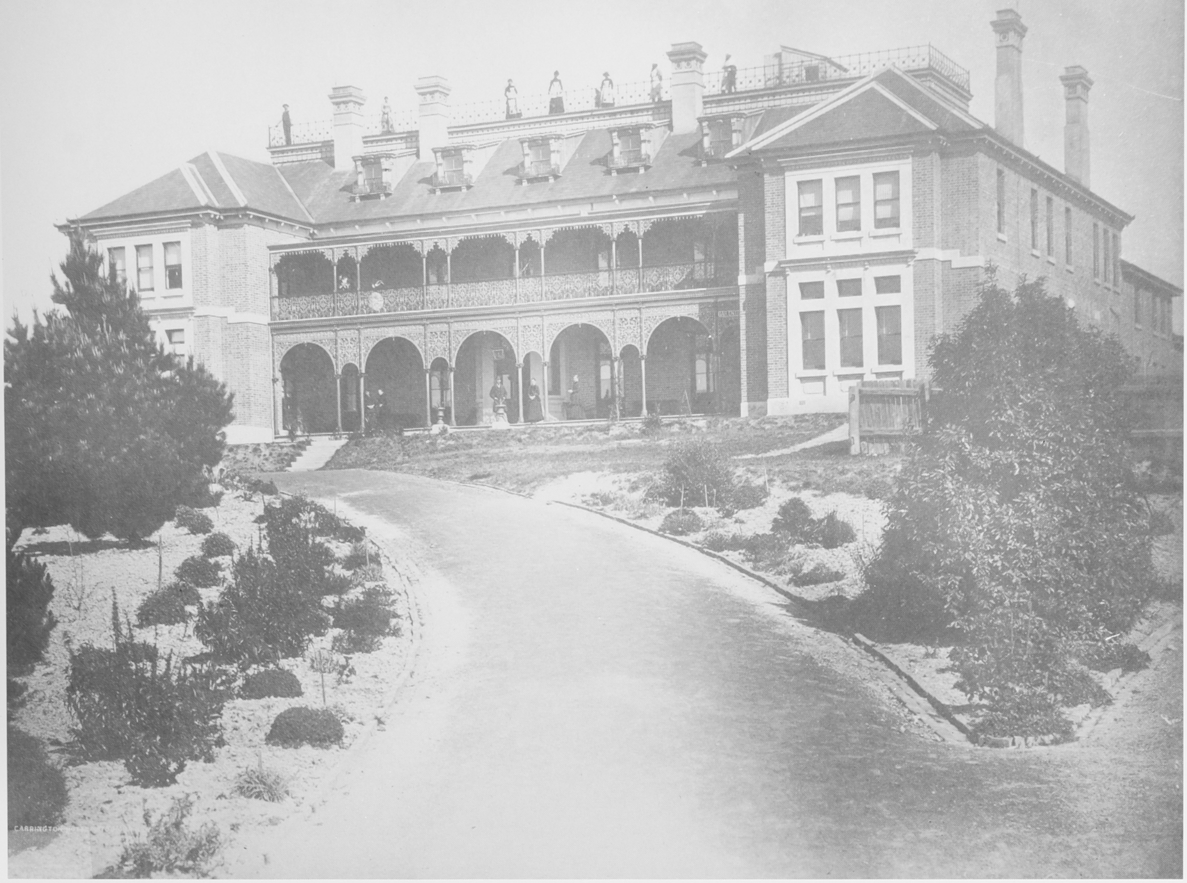
Mitchell Library, State Library of New South Wales

Lassetter's delivery van. F. Lassetter & Co. Limited was a wholesale and retail ironmonger business in George Street, Sydney, c.1870. In the latter part of the 19th Century both Lassetters and Anthony Horderns offered extensive mail order services, with the provision of large printed catalogues, throughout the country towns of New South Wales. Photo by Milton Kent.

Small general store at Rouchel Brook in the Aberdeen District of Northern N.S.W., 1908. This was where the well-known Glen Innes firm of country chain stores was founded.

From a photograph in the Mitchell Library, State Library of New South Wales, of an original held by Scone and Upper Hunter Historical Society.


MC MACKENZIE & SONS LIMITED
MERCHANTS AND IMPORTERS

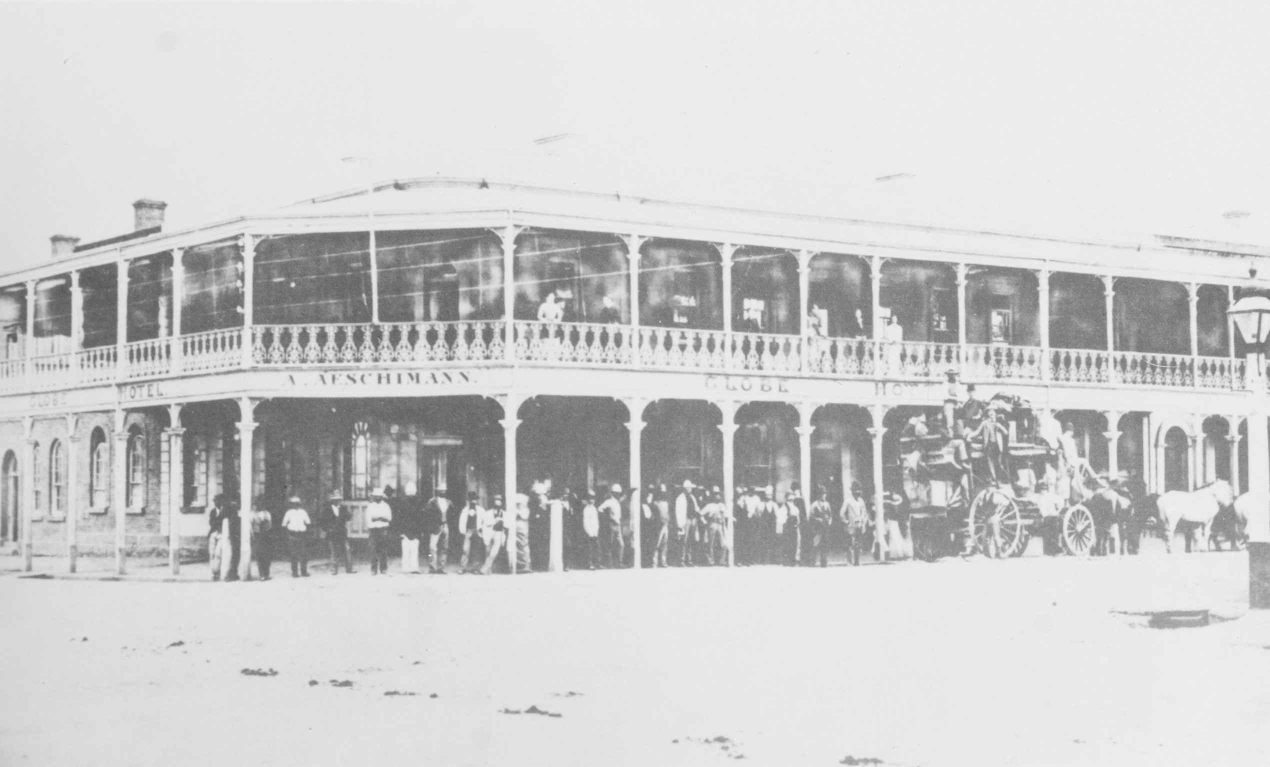


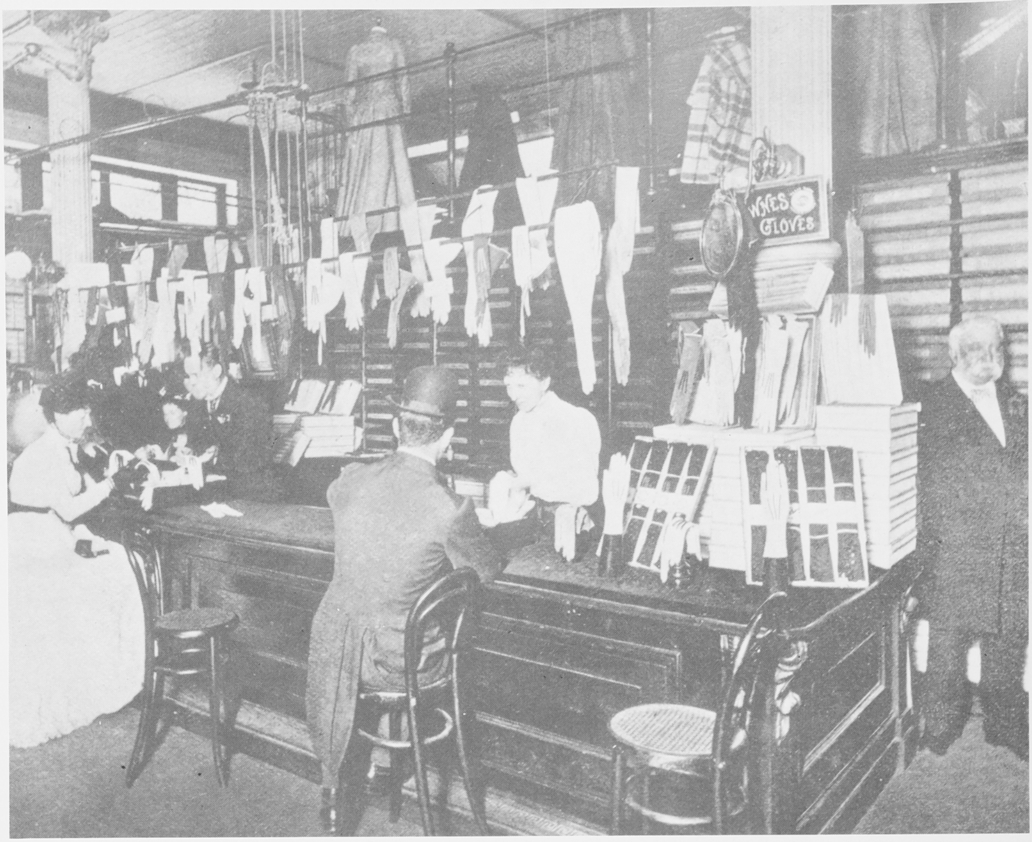
N.S.W. Government Printer

Carrington Hotel, 1887. Katoomba is a well-known tourist resort in the Blue Mountains of N.S.W. in close proximity to many impressive natural scenic attractions. The Carrington Hotel was established in 1880 and became a popular honeymoon and holiday destination for Sydney people. It was lavishly decorated and in its prime attracted many notable people.

Coach leaving Globe Hotel, Albury c.1870s.

Mitchell Library, State Library of New South Wales



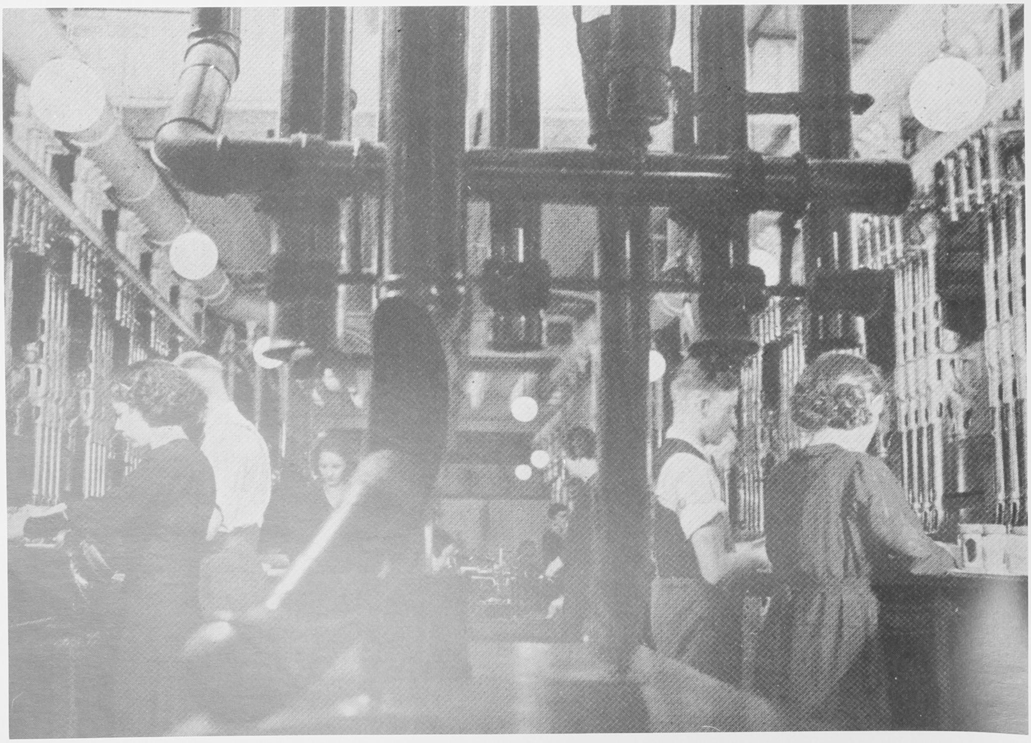


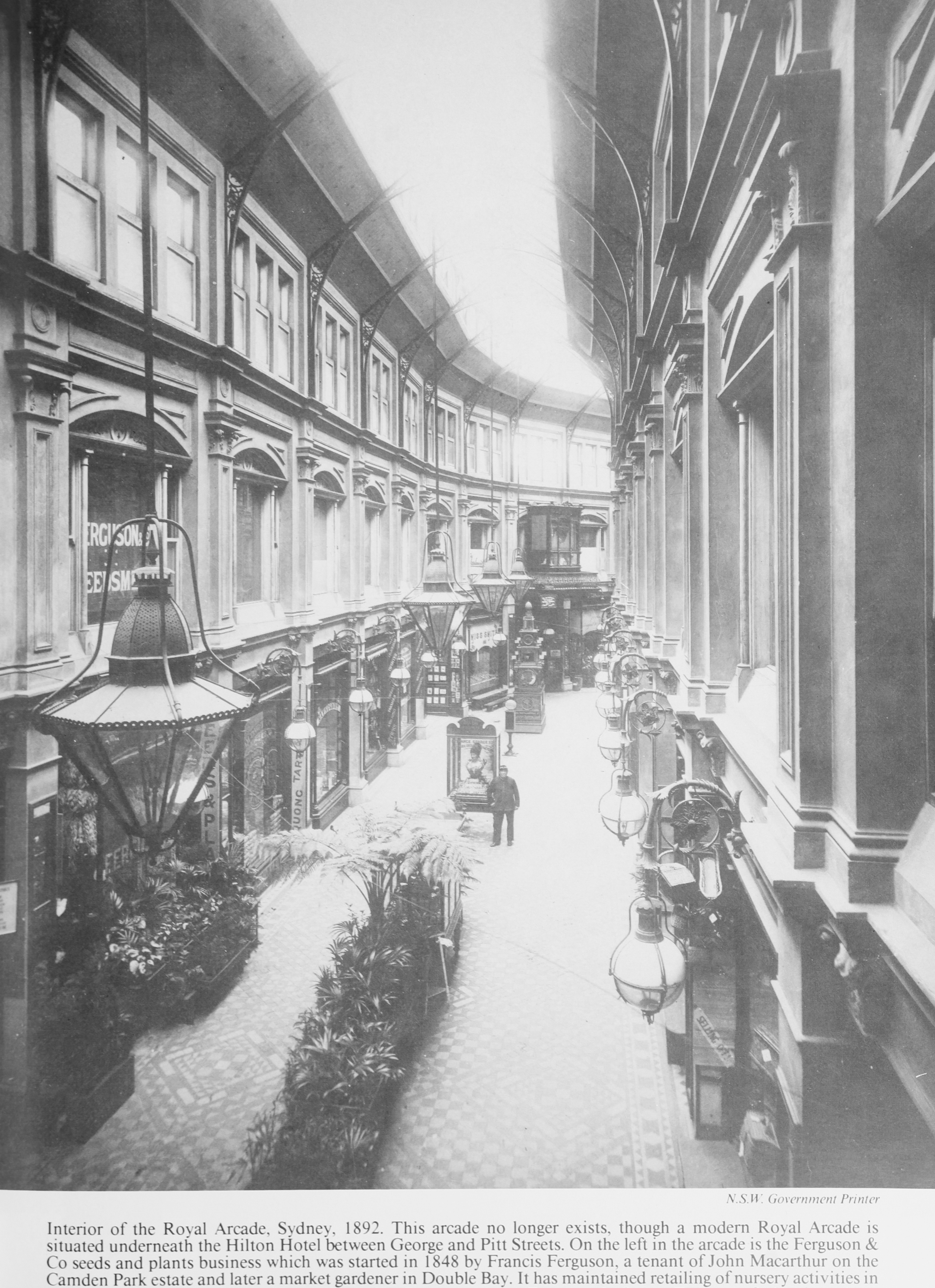
David Jones Limited

The David Jones Ladies Glove Department, George Street store, c.1890, shows the personal and leisurely customer service

The Tube Room, David Jones, Elizabeth Street store, 1930's. The Lamson Cash System, also known as the "pipe organs of commerce" was the payment system used in David Jones. The shop assistant placed a carrier containing cash and dockets into a tube, and it travelled through a pipe system to the basement where the transaction was processed. The carrier containing the change and receipt was returned to the customer via the tubes. On busy days 44,000 transactions could be dealt with by the Tube Room.

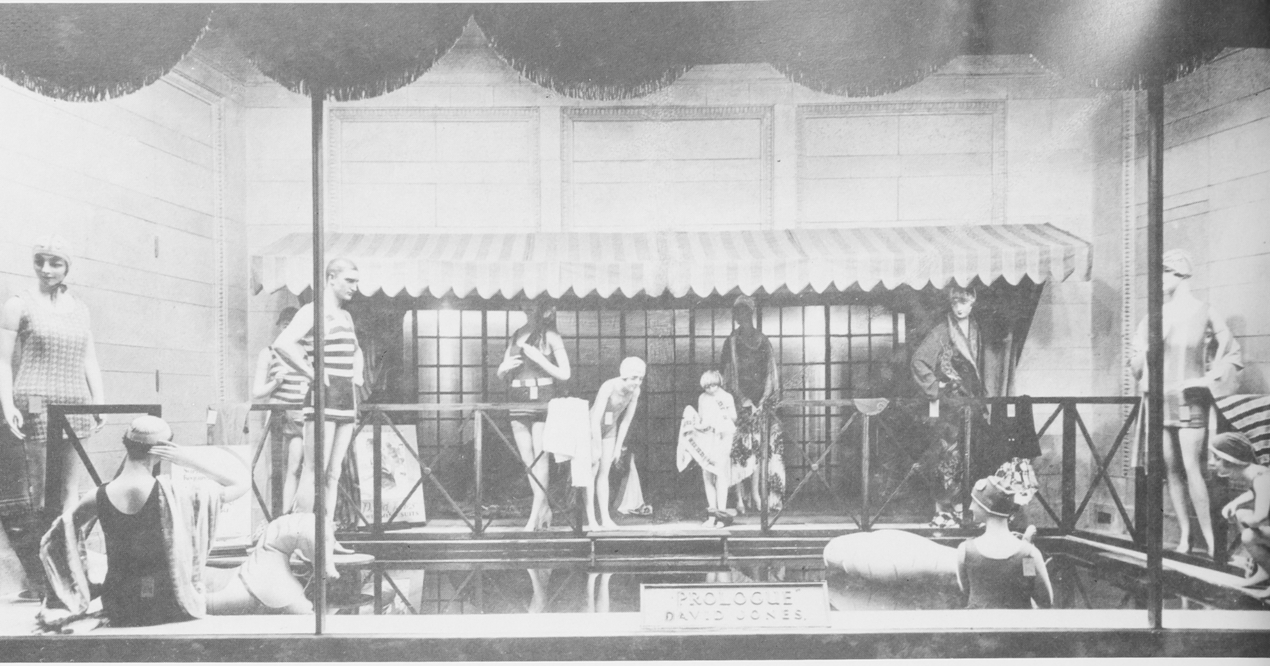
David Jones Limited





N.S.W. Government Printer

Interior of the Royal Arcade, Sydney, 1892. This arcade no longer exists, though a modern Royal Arcade is situated underneath the Hilton Hotel between George and Pitt Streets. On the left in the arcade is the Ferguson & Co seeds and plants business which was started in 1848 by Francis Ferguson, a tenant of John Macarthur on the Camden Park estate and later a market gardener in Double Bay. It has maintained retailing of nursery activities in the Sydney region to this time. Quong Tart's Tea Room is next to Fergusons' . Quong Tart was a Sydney merchant who sold Chinese tea (packaged under his own name), and ran a chain of refreshment rooms. The Arcade has elegant gas lighting, which people saw as an indication of Australia's growing prosperity.

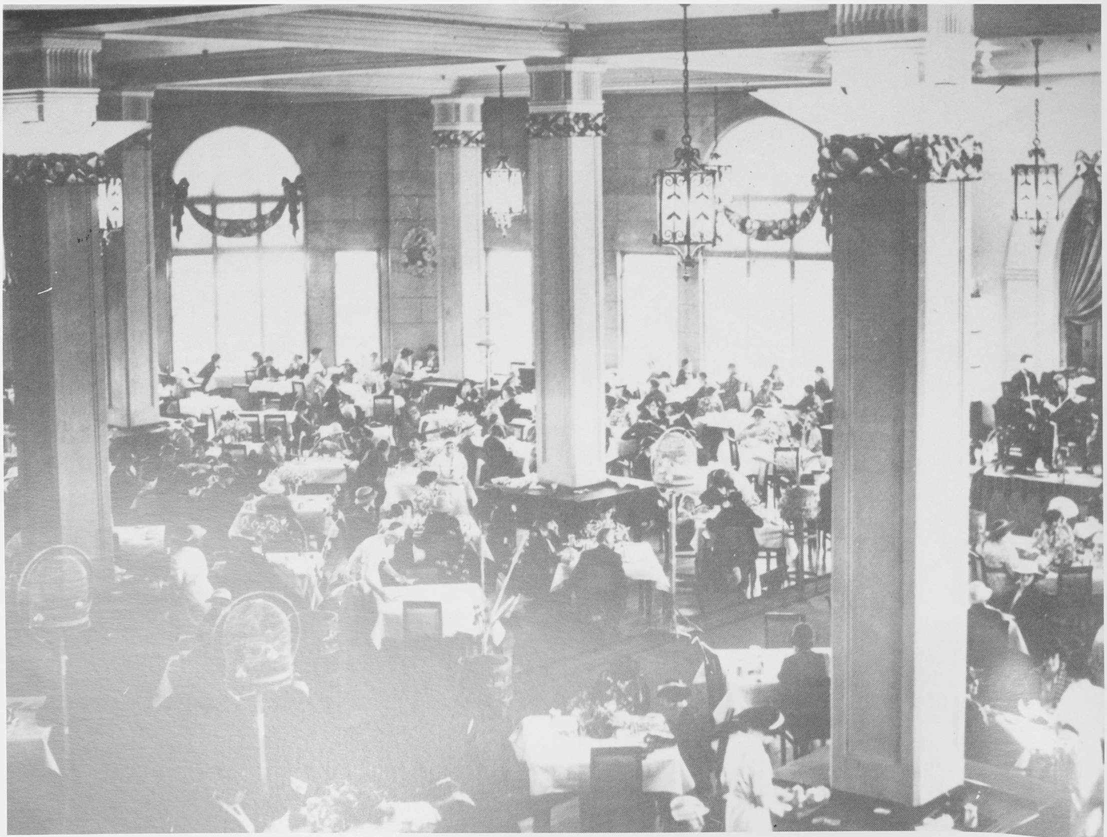


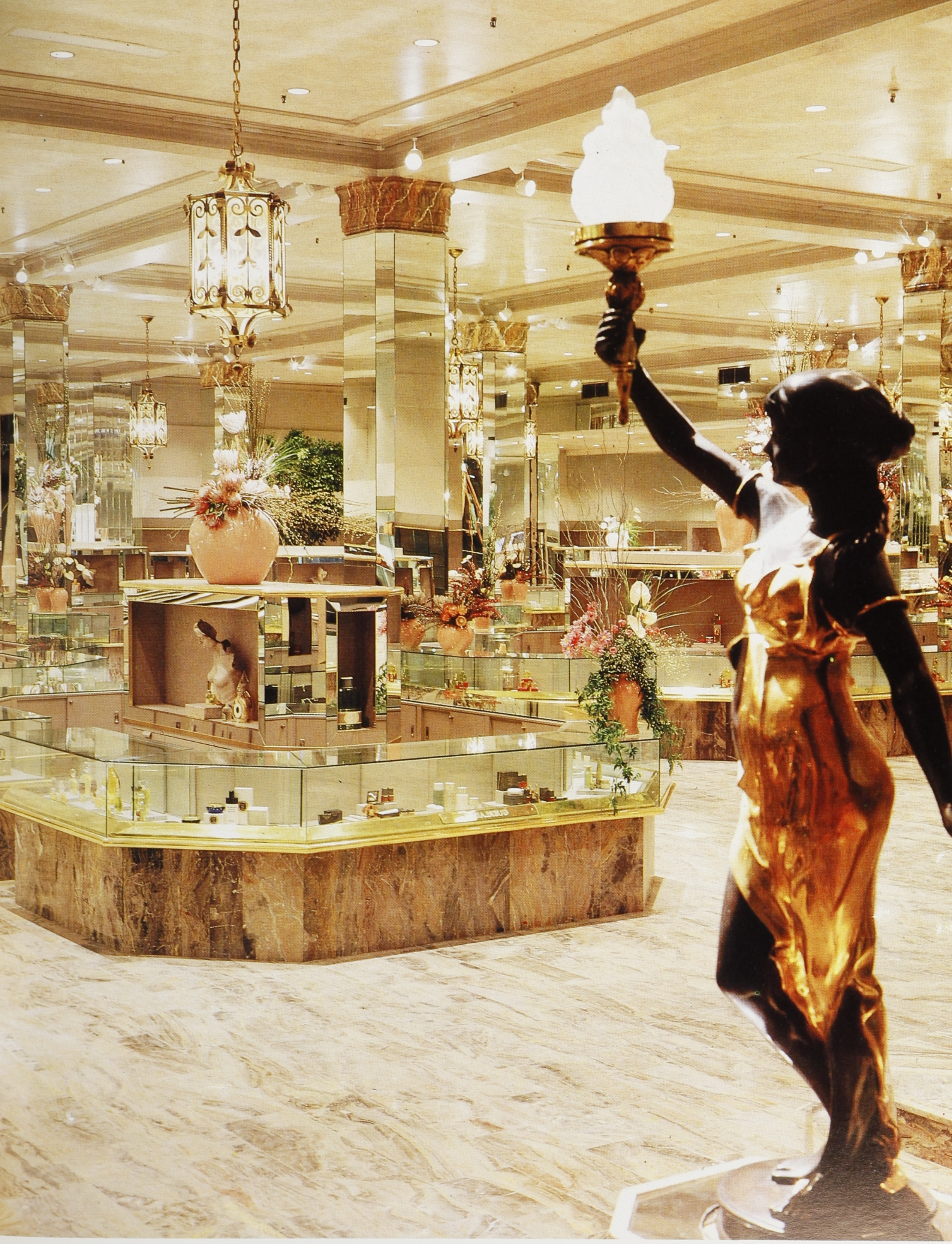
David Jones Limited

Window display of swimwear, David Jones, 1927. David Jones has long been renowned for its window displays. One of its advertisements claimed ".... watch David Jones windows to become fashion-wise. Always the setting shows the touch of a master hand. Sometimes gay, sometimes ultra modern, sometimes reminiscent of long-departed days, but always appropriate, always stimulating. At the beginning of each season when David Jones reveals the coming fashions, the windows are a picture. Crowds gather to see these artistic presentations. It is safe to say that the majority of Sydney women adjust their fashion views by what they have seen in David Jones windows".

The "Great Restaurant" 1927, on the top floor of David Jones Elizabeth Street store. Features such as the elegant bird cages, mellowed lighting and a small orchestra created the atmosphere which made the restaurant a popular luncheon place for the middle class ladies who went shopping in the city. From the window seats, patrons could look out across the Harbour, Hyde Park, and the eastern suburbs to the ocean. In 1954 the N.S.W. Government held its State Banquet for Queen Elizabeth on her Australian tour in the Great Restaurant.

David Jones Limited





David Jones Limited

The refurbished ground and lower ground floors of the Elizabeth Street David Jones store were officially opened to the public in April 1986. They were updated in contemporary style using marble, glass and mirrors. Some of the light fittings were originally in the Great Restaurant in 1927. The photograph shows the ground floor which specialises in womens' accessories, cosmetics and perfumery.

McDonald's
drive-thru
car parking

McDonald's Family Restaurants

McDonald's Penrith Leagues Store. McDonald's hamburger restaurants have been established throughout N.S.W. since the early 1970's. The restaurants offer both eat-in and take-away service, with many stores offering a drive-through take-away service.

Below left: Roselands Community Shopping Centre, 1968. When Roselands opened in 1965 it was Australia's first totally enclosed air-conditioned shopping complex. It has extensive car parking facilities and large areas to accommodate entertainment and promotional activities.
Below right: The Strand Arcade, Sydney, 1985. "The Strand" was opened in 1892 and today is the only arcade of Victorian architecture which exists in its original condition. It was one of the first enclosed areas in Sydney to be lit by electric light, and the glass roof allows natural daylight along the length of the arcade. Since a fire in 1976 gutted much of the George Street end, the arcade has been fully restored, and now houses some of Australia's leading fashion designers and craftsmen together with specialty and service shops.

John Wong

Promotion Australia

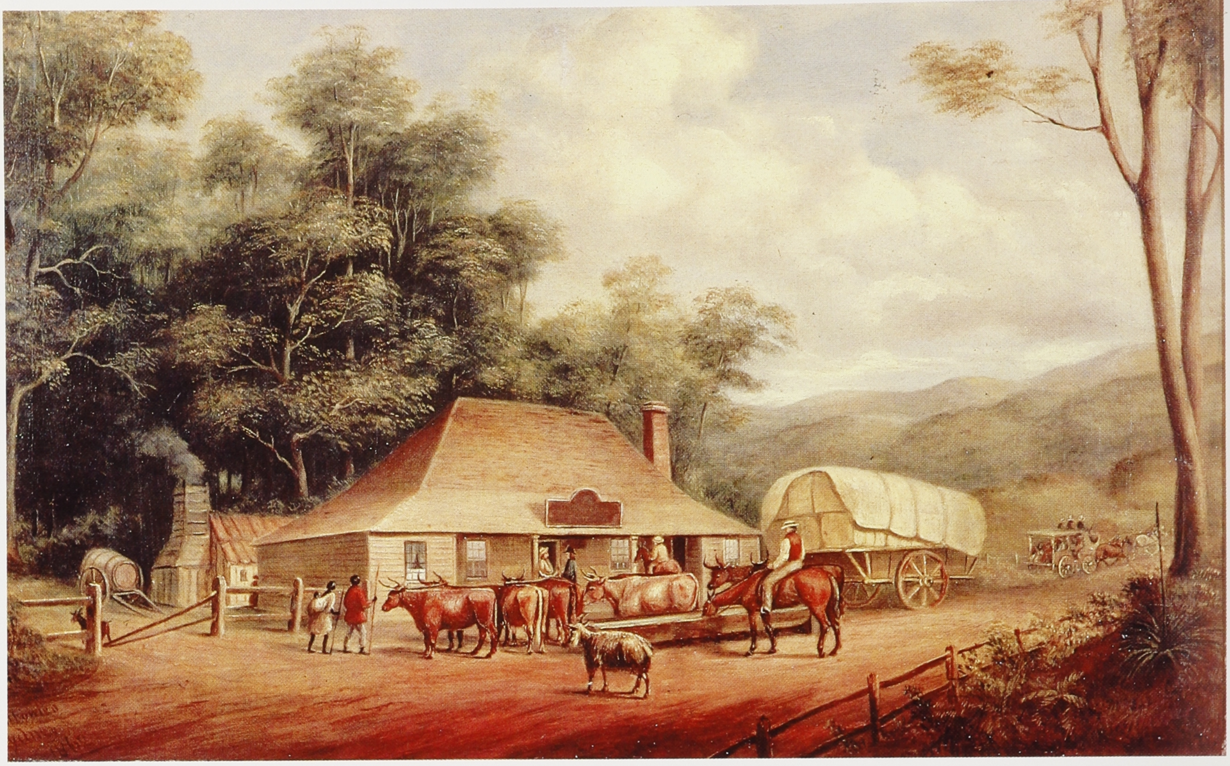
SUMMER SAVERS
COLONY SHOP
COLONY SHOP
SALE

The Westfield Group

Westfield Parramatta is one of Sydney's major regional shopping centres, meeting most consumer needs and providing vast car parking facilities for its customers. This centre is also located near public transport routes.

Fresh produce distribution centre at Flemington (near the Sydney Fruit and Vegetables Markets) opened in 1985 as part of Coles' upgrading of distribution facilities. Coles has 90 supermarkets in N.S.W. and this distribution centre serves metropolitan Sydney and the southern region.

G.J.Coles & Co. Pty. Ltd.


Dixson Galleries, State Library of New South Wales

"A Mountain Inn, 1862" by Joseph Fowles. For more than a century the roadside inn was a familiar feature of the Australian landscape. Inns provided refreshment and accommodation, as well as facilities for horses and oxen. Innkeepers often advertised the virtues of their premises and some provided theatrical entertainment.

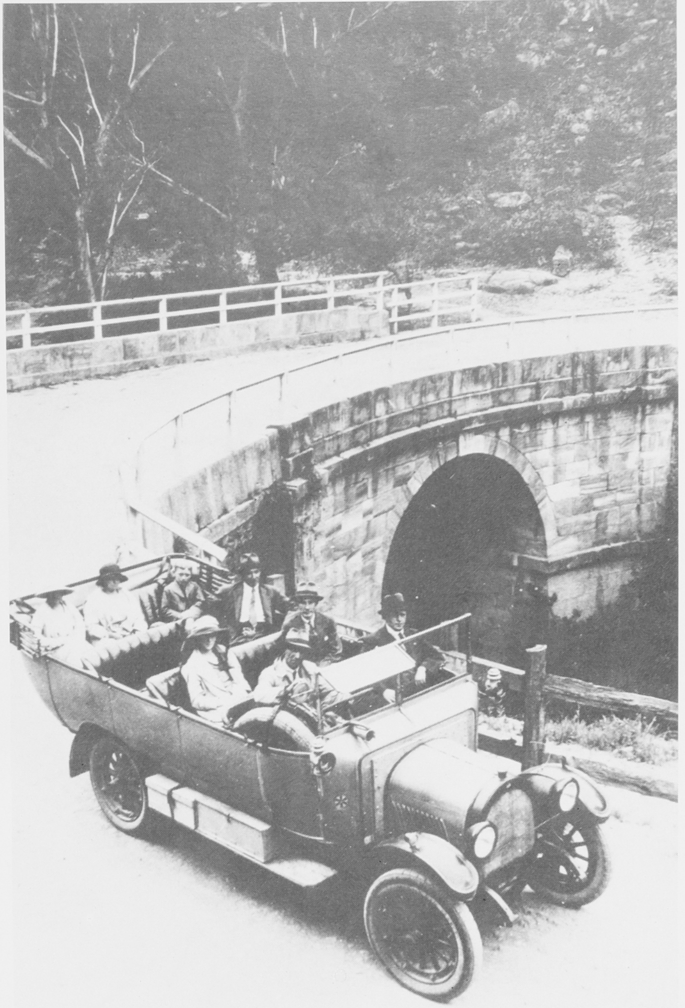
Queen Victoria Building — The Sydney City Council restoration project was carried out by Ipoh Garden (Aust.) Pty Ltd which has a 99 year lease on the building. The building was restored at a cost of $75 million, and reopened in 1986. It has a three-storey arcade of specialist shops and restaurants, an underground car park, and pedestrian tunnel links south to Town Hall station and north to Grace Bros Department store.

Ipoh Garden Berhad (Australia) Pty Ltd

HANDBAGS
MONZA
THE GRAND WALK

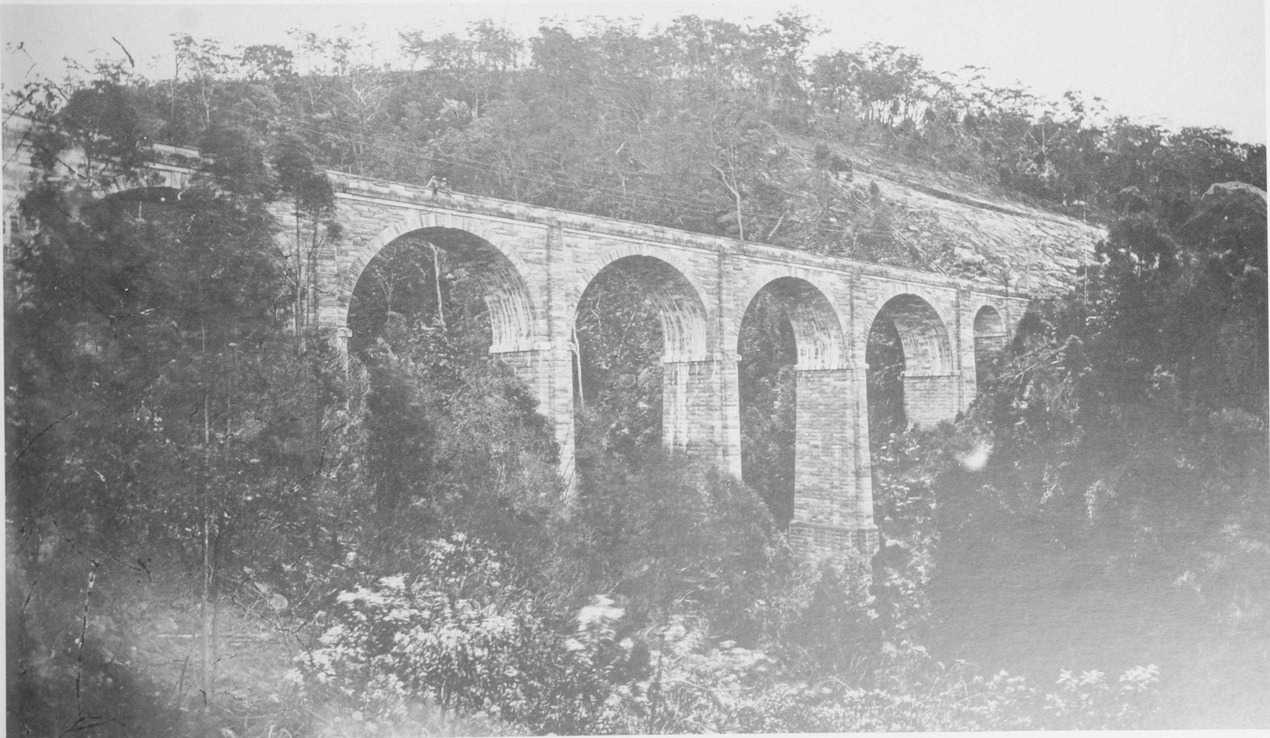
Mitchell Library, State Library of New South Wales

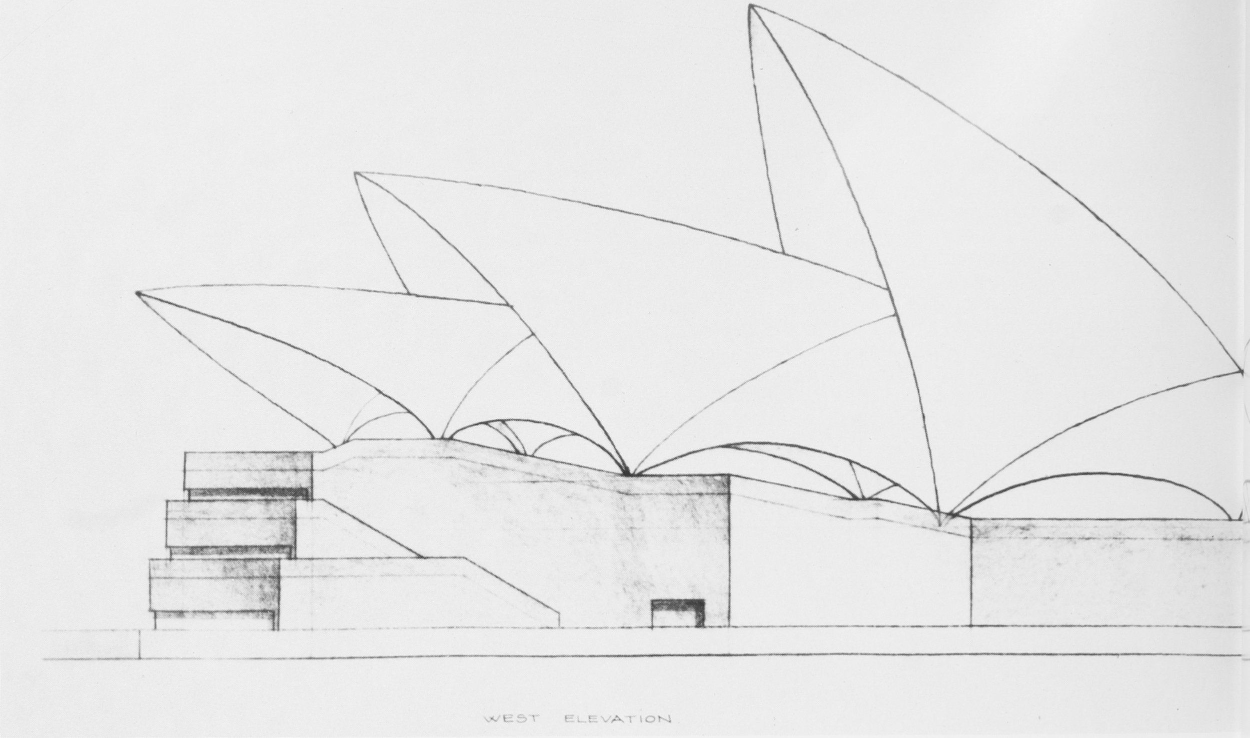
Right: The Lennox Bridge at Lapstone in the Blue Mountains, about 1930. This is the oldest remaining stone bridge on the Australian mainland. Named after its engineer, David Lennox, and completed in 1833 by unskilled convict labour whom Lennox trained to a remarkable degree of competence, it is a stone arch structure, curved on one side and straight on the other, spanning Lapstone Creek on Mitchell Pass. The bridge greatly facilitated vehicular access carrying all the traffic of the western highway until 1926, when the road was diverted. In the 1960's the bridge was closed to ensure its preservation, as cracks had appeared in its foundations. However, following the replacement of the cracked and broken stones, it was reopened to tourist traffic in 1982. Lennox was born in Scotland and migrated to Australia in 1832. He was a stonemason by trade, working as a foreman on important works in Britain, and on his arrival in Sydney he obtained government employment, eventually receiving the title "Superintendent of Bridges".

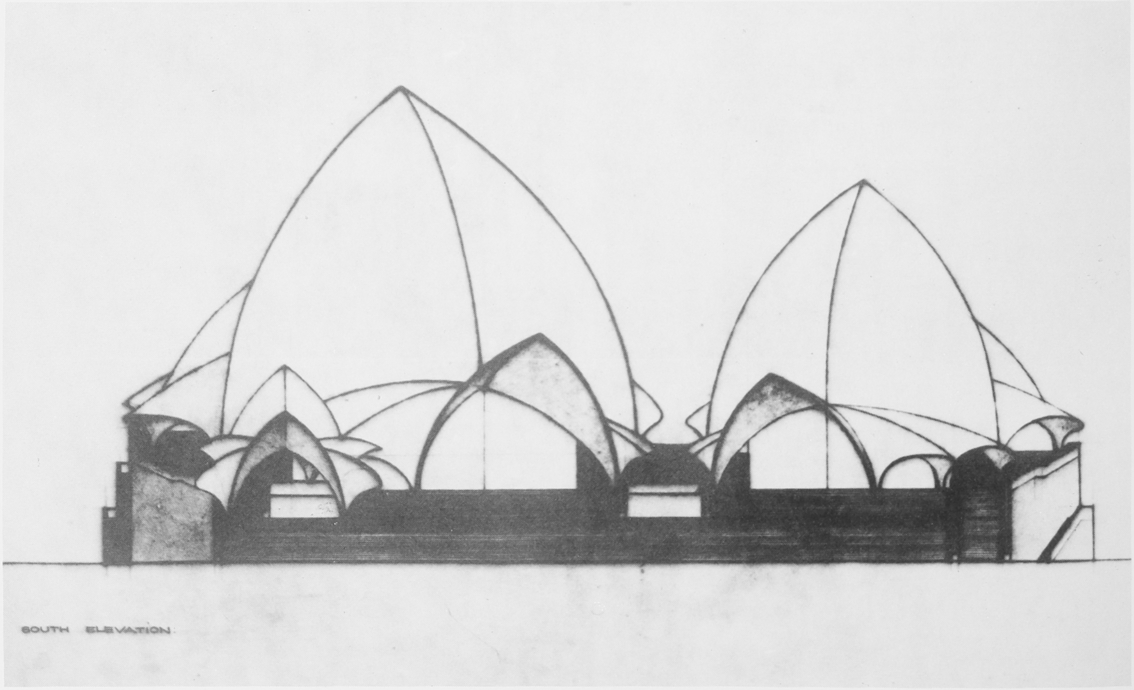


The Knapsack Viaduct near Glenbrook. This seven-arch stone viaduct was designed by chief railway engineer, John Whitton and built in 1867. It is 120m long, 9m wide and the centre arch is 38m above the creek bed. It was originally built to carry the western railway across Knapsack Gully when the line was extended from Penrith to Weatherboard (Wentworth Falls). To enable the line to negotiate the steep ascent of Lapstone Hill, a zig-zag system, known as the Little Zig-Zag, was also devised by Whitton to avoid the expense of extensive tunnelling. A section of that track, known as Bottom Road, passed over Knapsack Viaduct. The Lapstone Zig-Zag was eventually abandoned in favour of a tunnel route avoiding the necessity for reversal of trains and Knapsack Viaduct now forms part of the Great Western Highway.

N.S.W. Government Printer

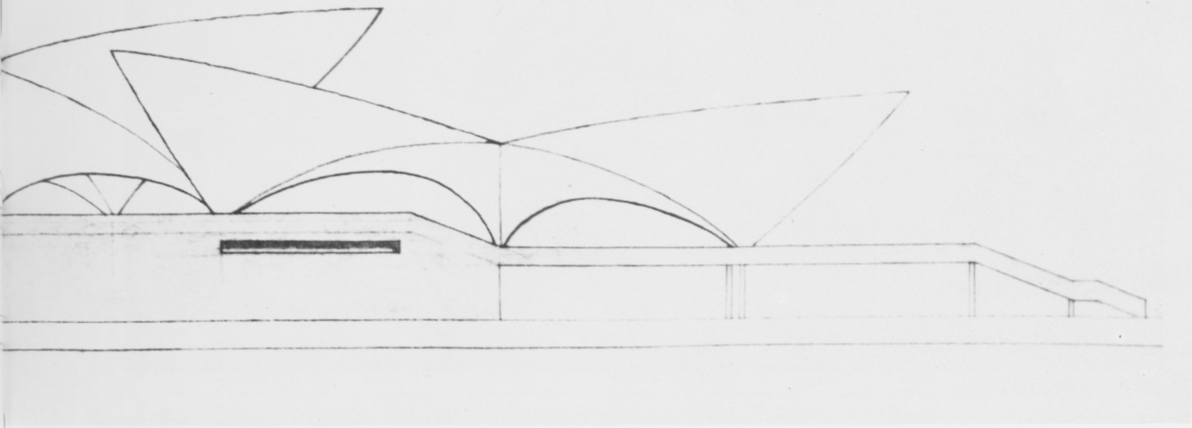


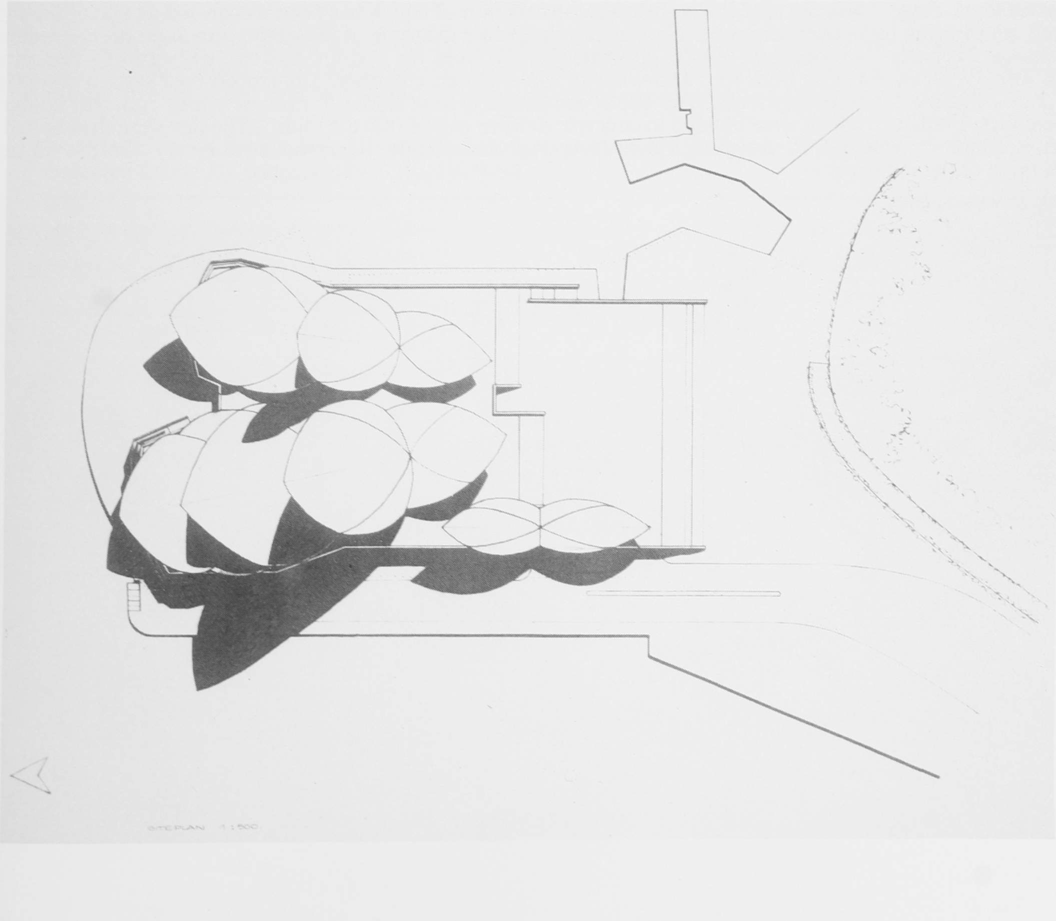


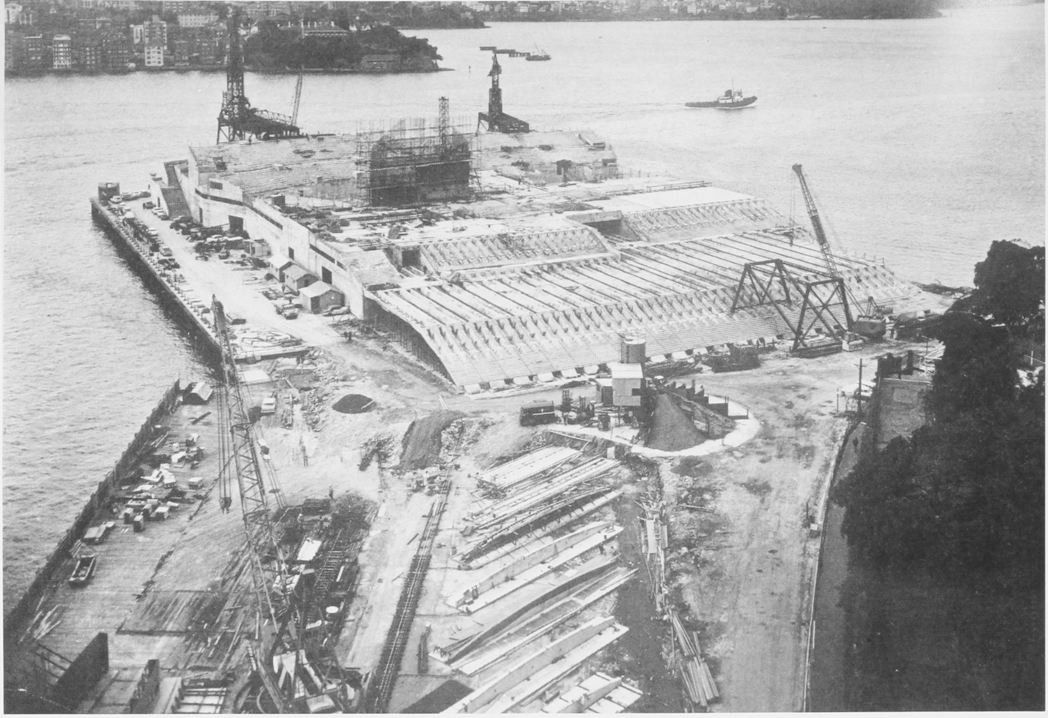


Archives Office of New South Wales

In 1954, the N.S.W. Premier (J.J.Cahill) appointed a committee to advise the Government on constructing a national opera house in Sydney. The site chosen by the committee was Bennelong Point. In 1956, the State Government held an international competition to select a design for the building. Over 200 entries were received from 32 countries and the winning design was submitted by the Danish architect, almost unknown in Australia, Joern Utzon. Some of the sketches submitted by Utzon are illustrated above and on the adjacent page, and show the west elevation (top), the south elevation (above) and the site plan showing roof plans (right). The conditions of the competition stated, *inter alia*, that designs should include a large hall seating between 3,000 and 3,500 people and a small hall seating 1,200 people. The accommodation actually provided comprises a concert hall seating 2,700, an opera theatre seating 1,500, a drama theatre, a music room, a reception hall, an exhibition hall and two restaurants. Construction began in 1959 with Utzon as architect for the project. He resigned from that position in 1966 because of disagreements with engineers and Government officials concerning various aspects of the building's construction. It was opened in 1973.



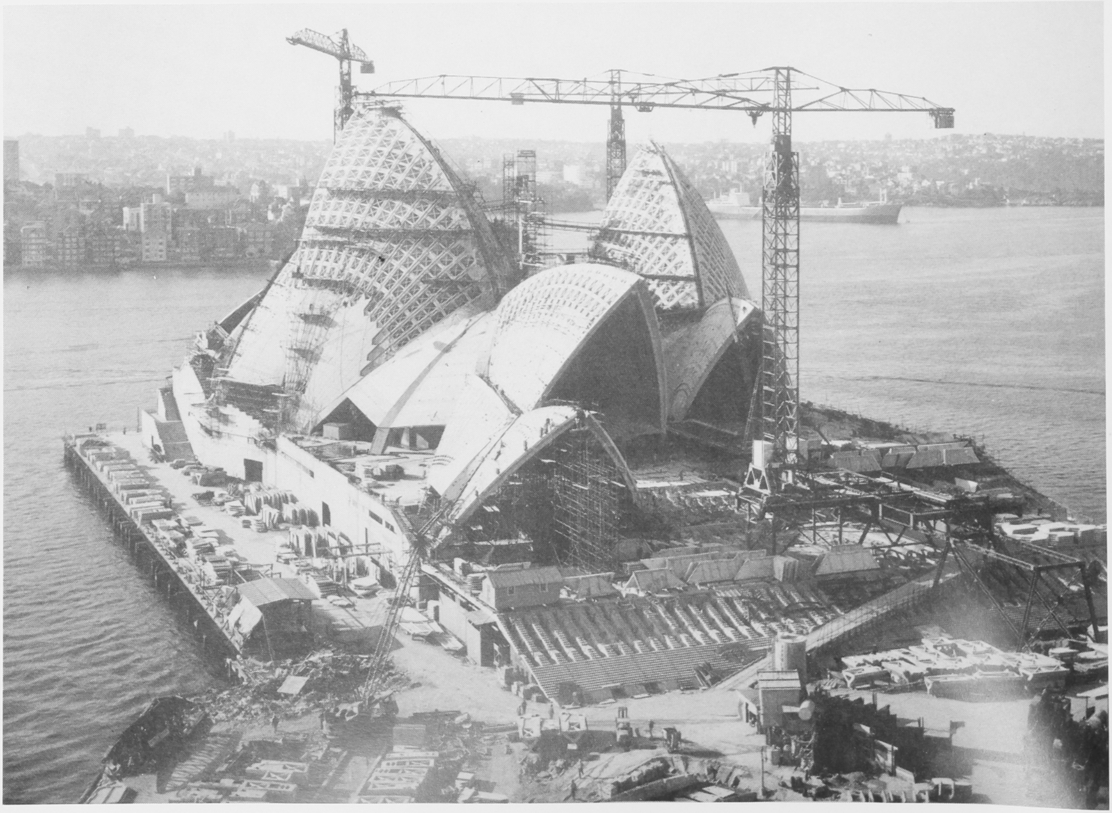

SITEPLAN 1:500.



N.S.W. Government Printer

The construction of the Sydney Opera House took place in three stages. Stage 1 was the massive, horizontal reinforced concrete podium forming the base of the Opera House (above). Although a portion of the podium rests on a sandstone bedrock found about water level, much had to be supported on concrete piers put down to bedrock below sea level. Stage 2 was the roof shells (below), construction of which has been recognised as one of the most difficult engineering tasks ever achieved. They are a remarkable example of prefabrication from mass-produced, interchangeable parts. Two opposite rows of concrete ribs rise from the podium and curve inwards to meet at the centre line overhead, forming both roof and walls of the enclosed chamber. The ribbed roof system comprises over 2,000 precast concrete segments. The shells are finished with about 1 million white and buff coloured ceramic tiles, batches of which were bonded to concrete to form over 4,000 tile "lids". The lids were then bolted to the ribs. Stage 3 included all finishing, furnishing and installation equipment necessary for the efficient functioning of the building.

N.S.W. Government Printer



Statistics summarising the operations of the selected service establishments included in the 1979-80 Census are shown in the next table.

Selected Service Establishments *(a)*: Summary of Operations By Industry, N.S.W., 1979-80

Industry class and group	*ASIC code*	*Establishments in operation at end of June*	*Persons employed at end of June (b)*	*Wages and salaries paid (c)*	*Value of retail sales*	*Turnover (b)*	*Value added (e)*
				$'000	$'000	$'000	$'000
Motion picture theatres	9133	150	2,004	15,199	10,515	59,422	33,958
Restaurants, hotels and accommodation —							
Cafes and restaurants	9231	2,669	24,344	120,548	113,662	461,911	214,073
Hotels, etc. (mainly drinking places)	9232	1,946	23,172	118,272	689,641	765,439	262,251
Accommodation	9233	1,982	16,058	99,620	30,547	338,788	224,732
Total restaurants, hotels and accommodation	*923*	*6,597*	*63,574*	*338,440*	*833,849*	*1,566,138*	*701,056*
Licensed clubs —							
Licensed bowling clubs	9241	566	5,941	49,804	93,958	188,983	117,780
Licensed golf clubs	9242	247	3,558	30,699	42,121	98,075	63,355
Licensed clubs n.e.c.	9243	724	27,795	240,123	295,792	836,604	563,061
Total licensed clubs	*9241-9243*	*1,537*	*37,294*	*320,626*	*431,871*	*1,123,662*	*744,196*
Laundries and dry-cleaners	9340	477	4,262	32,999	430	80,131	55,716
Hairdressers, beauty salons —							
Men's hairdressers	9351	81	330	1,981	619	5,012	3,393
Women's hairdressing and beauty salons	9352	773	4,077	26,988	3,452	57,966	41,196
Total hairdressers, beauty salons	*935*	*854*	*4,407*	*28,969*	*4,070*	*62,977*	*44,589*

(a) Except for ASIC classes 9232 and 9233, excludes single establishment selected service enterprises with turnover of less than $50,000. *(b)* Includes full-time and part-time working proprietors and employees. Excludes unpaid helpers. *(c)* Excludes drawings by working proprietors. *(d)* Retail sales and all other operating revenue. *(e)* Turnover plus increase (or less decrease) in the value of stocks less purchases, transfers in and selected expenses.

In the following table, a summary of the operations of single establishment selected service enterprises with turnover of less than $50,000 is shown. The table excludes establishments classified to "hotels, etc. (mainly drinking places)" and "accommodation".

Selected Service Single Establishment Enterprises *(a)* With Turnover of Less than $50,000: Selected Items By Industry, N.S.W., 1979-80

Industry class and group	*ASIC code*	*Establishments in operation at end of June*	*Persons employed at end of June (b)*	*Wages and salaries paid (c)*	*Turnover (d)*
				$'000	$'000
Motion picture theatres	9133	33	97	100	683
Cafes and restaurants	9231	749	2,090	2,627	19,962
Licensed clubs	9241-9243	43	62	299	1,198
Laundries and dry-cleaners	9340	640	1,496	2,306	15,252
Hairdressers, beauty salons —					
Men's hairdressers	9351	768	1,086	1,518	12,062
Women's hairdressing and beauty salons	9352	2,107	4,908	16,349	47,290
Total hairdressers, beauty salons	*935*	*2,875*	*5,994*	*17,867*	*59,352*

(a) Excludes ASIC classes 9232 and 9233. *(b)* Includes full-time and part-time working proprietors and employees. Excludes unpaid helpers. *(c)* Excludes drawings by working proprietors. *(d)* All operating revenue.

INTERCENSAL ESTIMATES OF RETAIL SALES

In periods between retail censuses, aggregates of the value of retail sales of goods are estimated from data reported in monthly and quarterly sample surveys of retail establishments which are based on the 1979-80 Retail Census results. The series provides statistics of the monthly value of retail sales of goods, classified by broad industry, for each State and Australia. A quarterly series provides estimates of retail sales, classified by commodity groups. Establishments classified to all classes in Subdivision 48 (Retail Trade) of the Australian Standard Industrial Classification, 1983 Edition (ASIC), except motor establishments (ASIC Classes 4861-4868), bread and milk vendors (4878, 4879), footwear repairers (4846) and electrical appliance repairers, n.e.c., (4857) are included in the scope of the surveys. Also included are establishments classified to the following "selected service" classes from ASIC Division L (Recreation, Personal, and Other Services): cafes and restaurants (ASIC Class 9231), hotels, etc. (mainly drinking places) (9232), licensed clubs

(9241-9243) and hairdressers (9351, 9352). Excluded from the surveys are single establishment enterprises with annual turnover of less than $50,000, except for hotels, etc. (mainly drinking places).

Retail sales are principally sales to the final consumer of new and second-hand goods for household or personal purposes. The estimates of retail sales do not include sales of building materials, builders' hardware and supplies such as tools of trade and paint, commercial refrigerators, business machines, tractors, farm machinery and implements, earthmoving equipment, grain, feed, fertilisers and agricultural supplies.

Estimates of retail sales by industry for the years ended June 1983 to 1987, as derived from the monthly survey, are shown in the next table.

Retail Sales of Goods (Excluding Motor Vehicles, Parts, Petrol, etc.): by Industry *(a)*, N.S.W.

Industry	*ASIC code*	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
		$m	$m	$m	$m	$m
Grocers, confectioners, and tobacconists	4881	3,946.9	4,239.0	4,515.7	5,978.9	5,567.2
Butchers	4882	607.4	629.9	639.7	753.1	816.3
General stores	4815	137.5	136.2	117.9	129.9	115.1
Other food stores *(b)*	4883,4885,4886	1,055.7	1,089.0	1,162.9	1,315.7	1,406.7
Hotels, (mainly drinking places), liquor stores and licensed clubs	4884,9232,9241-9243	1,808.6	1,888.0	2,037.0	2,198.5	2,365.5
Clothing and fabric stores *(c)*	4843,4844,4847	1,317.3	1,416.0	1,575.4	1,810.0	1,893.5
Department stores	4814	1,802.8	1,938.4	2,266.8	2,488.6	2,710.8
Footwear stores	4845	235.2	257.9	286.8	322.8	362.4
Domestic hardware stores and jewellers*(d)*	4853,4854	367.0	445.1	438.3	528.5	562.5
Electrical goods stores *(e)*	4855,4856	852.2	869.4	823.9	883.7	924.3
Furniture stores	4849	379.3	378.6	421.9	488.9	489.3
Floor coverings stores	4848	127.3	138.8	196.2	185.7	194.5
Chemists	4891	684.4	795.7	810.4	873.8	953.4
Newsagents, stationers and booksellers	4894	591.2	648.3	695.6	746.4	839.1
Other *(f)*	4892,4893,4895-4897, 9231,9351,9352	583.8	642.2	679.1	873.0	1,081.7
Total retail sales of goods *(g)*		**14,497.3**	**15,512.4**	**16,667.7**	**18,678.5**	**20,281.9**

(a) Excludes all motor establishments, bread and milk vendors, footwear repairers and electrical appliance repairers, n.e.c. *(b)* Includes fruit and vegetable stores, bread and cake stores, and fish shops, take-away food stores and milk bars. *(c)* Includes men's and boys' wear stores, women's and girls' wear stores, and fabrics and household textile stores. *(d)* Includes watchmakers. *(e)* Includes music stores and household appliance stores. *(f)* Includes photographic equipment stores, sports and toy stores, second-hand goods dealers, nurserymen and florists, retailing n.e.c., cafes and restaurants, men's hairdressers, and women's hairdressing and beauty salons. *(g)* Discrepancies between total sales as shown in this table and total sales shown in the table below are primarily due to rounding.

Estimates of retail sales by commodity for the years ended June 1983 to 1986, as derived from the quarterly survey, are shown in the next table.

Retail Sales of Goods (Excluding Motor Vehicles, Parts, Petrol, etc.) : by Commodity *(a)*, N.S.W.

Commodity	*1982-83*	*1983-84*	*1984-85*	*1985-86*
	$m	$m	$m	$m
Groceries	2,843.3	3,162.6	3,346.7	3,795.0
Fresh meat	794.9	833.6	830.0	962.8
Other food	1,482.0	1,524.4	1,729.2	1,963.4
Beer, wine and spirits	1,945.6	2,023.4	2,158.9	2,326.9
Clothing and drapery	2,082.1	2,181.2	2,375.5	2,671.8
Footwear	339.5	375.2	415.9	480.0
Hardware, china and glassware	635.6	729.9	774.3	872.5
Electrical goods	1,096.2	1,138.8	1,160.6	1,236.5
Furniture	505.6	510.4	570.9	652.0
Floor coverings	180.2	187.4	231.3	223.7
Cosmetics	399.6	433.1	476.6	554.9
Medicines etc.	403.9	474.9	479.5	501.1
Newspapers, books and stationery	641.2	698.7	777.7	860.3
Other goods	1,133.4	1,228.4	1,329.5	1,570.4
Total retail sales *(b)*	**14,482.9**	**15,502.0**	**16,656.5**	**18,671.5**

(a) For details of each commodity group refer to explanatory notes in the publication *Retail Sales of Goods (excluding motor vehicles, parts, petrol, etc.), Australia* (Catalogue no. 8503.0). *(b)* See footnote *(g)* to the previous table.

WHOLESALE TRADE

Statistics of the structure and pattern of wholesale trade in Australia were first collected in the census of wholesale establishments, conducted as one of a series of fully integrated economic censuses in respect of the year 1968-69. The statistical reporting units, the Australian Standard Industrial Classification (ASIC), and the standardised data items used in the conduct of these censuses, are described in Appendix B "Integrated Economic Censuses and Surveys" of the 1985 issue of this Year Book.

Statistics from the 1968-69 Wholesale Census are contained in Year Book No. 63, 1974, pages 1039-1045. As part of the ongoing program of economic censuses and surveys, a wholesale trade survey was conducted in respect of the year 1981-82. Results of this survey, which are available for Australia only and not for individual States and Territories, were published in ABS Catalogue No. 8638.0 (see references at end of this chapter).

MARKETING OF FOODSTUFFS

The principal centre for the wholesale marketing of fresh fruit and vegetables in New South Wales is the Farm Produce Markets at Flemington (known as the Sydney Wholesale Fruit and Vegetable Markets) operated by the Sydney Market Authority. The Authority operates under the Sydney Market Authority Act 1968 which empowers it to maintain, control, and manage public markets for the sale of farm produce within the County of Cumberland. Most of the business conducted at the Markets comprises sales by growers' agents or merchants to buyers, mainly retailers; growers may sell direct to buyers in a section of the Markets known as the Growers Market.

The Meat Halls at the State Abattoir and Meat Works at Homebush Bay are the principal centres in New South Wales for the wholesale distribution of meat for human consumption. Carcass butchers purchase stock on the hoof and deliver them to the Abattoir, where they are slaughtered along with stock already held at and owned by the Homebush Abattoir Corporation. Once slaughtered, the carcasses are treated, chilled and delivered to the Abattoir Meat Halls early on the following morning. Considerable quantities of meat also arrive at the Meat Halls from country and interstate abattoirs owned by local government authorities and by co-operative organisations and private interests.

Most of the poultry sold in the State for table meat is produced under contract to processors, who slaughter and treat the birds and sell them to retailers.

The marketing of fish in New South Wales, which is controlled by the Fish Marketing Authority, is described in Chapter 12 "Forestry and Fisheries".

Farm produce agents or merchants who sell fruit, vegetables, honey, or other farm produce on behalf of growers must be licensed, and must operate in accordance with the Farm Produce Act 1983. The provisions of the Act are summarised in the Sub-section "Marketing of Fruit and Vegetables" in Chapter 16 "Agriculture".

Marketing boards in respect of primary products may be formed, in terms of the Marketing of Primary Products Act 1983 upon the request of producers. Before a board is constituted for any product, a poll of the producers of the product must be taken, and more than half of the producers enrolled at the poll must vote in favour of its constitution. Boards established under the Act, market or supervise the marketing of rice, wine grapes, citrus fruits, tobacco leaf, grain sorghum, barley, oats, oilseeds and yellow maize. A Dried Fruits Board has been established under the Dried Fruits Act 1939, a Banana Marketing Control Committee under the Banana Industry Act 1969, and an Egg Corporation under the Egg Industry Act 1983 to market or supervise the marketing of dried fruits, bananas and eggs respectively.

The Commonwealth Government has established boards or authorities to market or supervise the marketing of wheat, meat, wool, dairy produce, eggs, canned fruits, dried fruits, apples and pears, wine and honey. The Australian Wheat Board controls and undertakes the marketing of most wheat for domestic consumption as well as for export, while the other Commonwealth boards are concerned mainly with marketing for export.

Standards of the composition, purity, and quality of foods are prescribed in terms of the Pure Food Act 1908. The administration of the food laws within local government areas, and the supervision of conditions under which food is produced and distributed, are duties of the N.S.W Department of Health and local government authorities. The N.S.W. Meat Industry Authority licenses abattoirs and slaughter houses and investigates and promotes matters relating to the improvement of hygiene in these and other meat premises. Meat for local consumption is inspected at the State Abattoir at Homebush Bay and other abattoirs by officers of the Commonwealth Department of Primary Industry.

The composition and labelling of overseas imports of food and drugs are supervised by the Commonwealth Department of Industry Technology and Commerce. The quality and labelling of foodstuffs intended for export are supervised by the Commonwealth Department of Primary Industry, which also licenses abattoirs slaughtering for export and has staff permanently attached to each licensed abattoir, who are responsible for the inspection of all meat destined for export.

Further information about arrangements for the marketing of agricultural products is given in Chapter 16 "Agriculture" and Chapter 12 "Forestry and Fisheries". Arrangements for the marketing of milk and bread are described below.

Bread

The manufacture and delivery of bread in New South Wales is controlled by the provisions of the Bread Act 1969. This Act provides for the licensing of bread manufacturers, zoning for bread manufacturers in country areas, the certification of operative bakers, the fixing, by regulations to the Act, of standard weights of bread loaves, and the fixing, by industrial award, of starting and finishing times allowed for the baking and delivery of bread.

Information about bread prices is given in Chapter 21 "Prices".

Milk

Responsibility for regulation and control of the production, quality, supply and distribution of milk and cream throughout New South Wales rests with the New South Wales Dairy Corporation in terms of the Dairy Industry Act 1979. All milk supplied for human consumption is vested in the Corporation.

Powers exercised by the Corporation include regulating and controlling the production, quality, supply and distribution of milk and dairy products, the inspection of dairy produce merchants (milk intake and treatment factories, vehicle, and shop vendors of milk) and determination of quantities of milk to be supplied by farmers to the Corporation. Distribution companies organised for handling milk on a large scale act as agents for the Corporation in receiving milk, and purchase their supplies from the Corporation for distribution, through dairy produce merchants (vehicle vendors) to consumers. The prices paid to dairymen and the wholesale and retail prices of milk in New South Wales are given in Chapter 21 "Prices".

For the retail delivery of milk, the metropolitan district and most of the country distributing districts are zoned and each zone is allotted to a dairy produce merchant (vehicle vendor) registered with the New South Wales Dairy Corporation.

Sales of milk by the Corporation in 1985-86 totalled 591.9 million litres, comprising 553.0 million litres of liquid whole milk and 38.9 million litres used for separation for sweet cream. These sales were an increase of 1.73 per cent compared with those for 1984-85. Sales in the metropolitan area in 1985-86 totalled 359.6 million litres including 32.4 million litres for separation for sweet cream.

At 30 June 1986 there were 2,603 dairy farmers registered by the Corporation compared with 2,838 in the previous year. There were 2,099 vehicle vendors and 14,448 shop vendors registered at 30 June 1986. The value of milk sold by the Corporation to distributors in 1985-86 was $227.9m. In 1985-86 the cost of treatment at factories was $8.5m and transport to distributing centres was $10.0m while payments to dairy farmers totalled $190.7m.

REGULATION OF LIQUOR TRADE

The sale of intoxicating liquor in New South Wales is regulated by the State Government. Only holders of licences under the Liquor Act 1982 or certificates of registration under the Registered Clubs Act 1976 are permitted to sell and supply intoxicating liquor.

Registered Clubs Act 1976

The Registered Clubs Act 1976 authorises the Licensing Court to issue certificates of registration to clubs to sell liquor and to operate poker machines. Refer to Chapter 22 "Public Finance" which deals with poker machine licences. The fee for a new certificate of registration may not exceed $2 per member at the date of application and renewal fees are assessed on the same basis as for a hotelier's licence.

Except where authorised by the legislation, admittance to clubs is restricted to members and bona fide guests of members.

No restrictions apply in relation to bar and poker machine trading hours in clubs. However, liquor may not be taken away from a club's premises on Good Friday, Christmas Day or Sunday between the hours of 12 noon and 10 pm or on any day proclaimed by the governor.

LIQUOR ACT 1982

Under the legislation there is one Licensing Court of New South Wales with a State-wide jurisdiction. Not less than three licensing magistrates, constitute the Licensing Court. The Court's main function is the determination of new licences under the Liquor Act. The Court also deals with applications relating to the removal of certain licences and transfer of licensees, variation of trading hours and disciplinary provisions of the Act. The Court may not make an order for removal of a licence unless satisfied that it is in the interests of the public in the neighbourhood of the proposed new site, and is not detrimental to the interests of the public in the neighbourhood of the premises from which it is proposed to remove the licence. The Court may also impose a condition upon a hotelier's licence to enable the licensee to operate approved amusement devices (i.e. video poker machines) on their premises. Technicians, sellers and dealers of approved amusement devices must also be licensed by the Court. The same bench of magistrates, as for the Court, constitutes the Liquor Administration Board. The Board is an administrative tribunal which operates in an informal atmosphere. The Secretary of the Board is responsible initially for the assessment of licence fees (see below) paid by licensees and clubs. The Board undertakes the oversight of the standard of licensed premises and the provision of entertainment on licensed premises having regard to fire safety standards and alterations of licensed premises.

Types of Liquor Licences

Under the Liquor Act, there are three general types of liquor licences (apart from the special case of a Governor's licence) as described below.

A *hotelier's licence* authorises the retail sale of liquor on licensed premises for consumption either on or off such premises. The licence may be endorsed to dispense with the need to provide residential accommodation. A light meal must be made available. The fee for a hotelier's licence is fixed by the Board and the periodic licence fee payable is 10 per cent of the purchases of liquor by the licensee in the preceding assessment year.

An *off-licence* authorises the sale of liquor only for consumption off the licensed premises. An off-licence may be granted to sell liquor by retail sale only or by wholesale sale only (i.e. to other persons authorised to sell liquor). Other types of off-licences relate to a brewer, an auctioneer, or a vigneron. The fee for a new retail off-licence is fixed by the Board but is not to exceed $20,000 and the periodic licence fee thereafter in respect of this licence is 10 per cent of the purchases of liquor by the licensee in the preceding assessment year. Fees for other types of off-licenses as well as the periodic licence fees and trading hours, are dependent on the conditions attached.

An *on-licence* authorises the sale of liquor, with special conditions, for consumption on the licensed premises. An on-licence may relate to a restaurant, an airport, a public hall, a trade fair, a theatre, a university or college, or a vessel or aircraft. An on-licence may also be granted to sell liquor at a function (other than a trade fair) which is conducted by a non-proprietary association or is to be supplied by a hotelier. The fee for the grant of the licence, the periodic licence fee and trading hours depend on the conditions attached to each licence.

A *Governor's licence* authorises the sale of liquor in exceptional circumstances at works or undertakings of a semi-Government or public nature, e.g. certain public buildings and on racecourses where the body which administers the racecourse has been created by way of statute.

Renewal of Licences

In terms of the Acts, a licence and a certificate of registration remain in force until they are suspended, cancelled or surrendered. A periodic licence fee (previously known as the renewal fee) is payable. The licence period will run from January or February of each year, depending on the type of licence certificate, and the annual fee will be based on liquor purchases by clubs and licensees for the previous year ended 30 June. Licences held by technicians, sellers and dealers of approved amusement devices are renewed each year by the payment of a prescribed set fee.

TRADING HOURS FOR HOTELS

Hotel bars may not be opened for the sale of liquor on Good Friday, Christmas Day, or any other day proclaimed by the Governor. The hours of liquor trading in hotel bars are, in general, 10 a.m. to 11 p.m. Monday to Saturday and 12 noon to 10 p.m. on Sundays. The Licensing Court has authority to vary these trading hours where local circumstances warrant it. Generally, this discretionary power is limited to the extent that no hotel may trade for a period longer than fourteen hours each day or open before 5 a.m. Monday to Saturday or 10 a.m. on Sunday. These hours may be further varied, with certain conditions being satisfied, to allow a 3 a.m. trading permit. The maximum period a hotel can trade is not applicable to 3 a.m. trading permits.

Liquor may be supplied with meals or with food and entertainment, outside normal trading hours, by hotels holding the necessary permits or licences.

Restrictions on hours, in terms of the Liquor Act, do not apply to the sale of liquor to residents of hotels.

SUPPLY AND CONSUMPTION OF ALCOHOLIC BEVERAGES

Liquor may not be supplied on licensed premises to persons under the age of 18 years. Proof of age may be required by licensees, who are subject to penalties for supplying under-age persons.

The Licensing Court may approve "authorised areas" on hotel premises in which under-age persons may be present whilst in the company of a person over 18 years of age. Under-age persons are not allowed at any time in areas of licensed premises designated as "restricted areas". The Act specifies that the escort of an under-age person is responsible for ensuring that such person does not consume liquor on the licensed premises or enter restricted areas.

The next table shows the quantity of spirits, wine, and beer purchased by holders of liquor licences for retailing to the public and the quantity sold direct to the public by wholesale wine and spirit merchants. The figures represent, approximately, the consumption of intoxicating liquor in New South Wales exclusive of defence force canteens, etc. not supplied by licensees to the Liquor Administration Board.

Alcoholic Beverages: Consumption in N.S.W.
(*Source*: Liquor Administration Board)
('000 litres)

	Quantity purchased (a)					
	Year ended 31 December				*Year ended 30 June*	
Beverage	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Beer	768,968	/696,202	n.a.	n.a.	690,818	659,010
Wine	110,616	122,443	n.a.	n.a.	n.a.	193,365
Spirits *(b)*	20,316	22,968	n.a.	n.a.	31,810	32,193

(a) See text above table. *(b)* Total quantity, not alcoholic content.

ACCOMMODATION STATISTICS

The Australian Bureau of Statistics conducted the first census of tourist accommodation establishments in respect of the year ended 30 June 1974, and establishments providing tourist and other accommodation were included in the 1979-80 Census of Retail Establishments and Selected Service Establishments (see the 1986 issue of the New South Wales Year Book, page 528 for the results of this Census).

Since the September Quarter 1975, quarterly surveys of tourist accommodation establishments (with a restricted scope and collecting a limited range of data items) have been conducted.

SURVEYS OF TOURIST ACCOMMODATION ESTABLISHMENTS

For the purpose of the quarterly surveys of tourist accommodation, a tourist accommodation establishment is defined as an establishment which provides predominantly short-term accommodation (i.e. for periods of less than two months) available to the general public. The current scope of the surveys comprises hotels, motels, and guest houses with facilities (i.e. provides bath or shower and toilet in most guest rooms, and has breakfast available for guests) and caravan parks with powered sites for caravans and toilet, shower, and laundry facilities for guests.

The following tables show details of the operations of tourist accommodation establishments and caravan parks in New South Wales, obtained from the quarterly surveys. When establishments also provide accommodation for long-term guests, details relating to that accommodation are included in the statistics.

Tourist Accommodation Establishments *(a)* N.S.W.: Summary of Operations

Item		*1981-82*	*1982-83*	*1985-86*		
				Licensed hotels (b) with facilities	*Motels etc. with facilities*	*Total*
Establishments at 30 June	No.	1,362	1,389	263	1,184	1,447
Capacity at 30 June —						
Guest rooms	No.	35,982	37,266	9,848	29,225	39,073
Bed spaces *(c)*	No.	103,032	107,658	24,398	89,408	113,806
Room occupancy rates	Per cent	55.3	57.2	60.8	60.0	59.9
Bed occupancy rates	Per cent	35.0	35.3	38.4	36.3	36.7
Accommodation takings *(d)*	$'000	309,153	357,544	148,809	280,765	429,574

(a) Excludes caravan parks. *(b)* Licensed to operate a public bar. *(c)* Three-quarter beds are classified as single beds, and double beds are counted as two bed spaces. *(d)* Revenue received from the provision of both short-term and long-term accommodation.

Caravan Parks, N.S.W. *(a)*: Summary of Operations

Item		*1983-84*	*1984-85*	*1985-86*
Establishments at 30 June	No.	576	578	589
Capacity at 30 June —				
Powered sites	No.	51,112	51,317	52,926
Unpowered sites	No.	24,125	23,897	24,175
Cabins, flats, etc.	No.	1,107	1,128	1,228
Site occupancy rates	Per cent	22.6	23.2	24.4
Accommodation takings	$'000	48,115	53,990	60,970

(a) Includes Australian Capital Territory.

CONSUMER PROTECTION

Consumer affairs in New South Wales are administered by both Commonwealth and State authorities. Consumers are protected by special consumer legislation as well as by common law. In addition, a number of voluntary consumer bodies exist.

NEW SOUTH WALES GOVERNMENT JURISDICTION

The Consumer Protection Act 1969, provides for the guidance and general protection of consumers in New South Wales. The Act deals with such matters as false or misleading advertising, collusive tendering, and minimum standards of safety for consumer goods. In addition to the Consumer Protection Act, there are more than thirty other Acts and numerous regulations which apply to specific aspects of consumer affairs including controls over funeral funds, harsh or unjust contracts, date stamping of foodstuffs, travel agents, weights and measures, door to door sales, motor dealers and credit providers.

Department of Consumer Affairs

The Commissioner for Consumer Affairs is empowered to receive and investigate complaints related to fraudulent or unfair practices affecting goods, services or real estate; to grant legal assistance to consumers; to restrain, by injunction, breaches of consumer protection legislation; to advise the public on matters affecting their interests as consumers; to disseminate information collated; and to encourage or undertake consumer education.

The Department of Consumer Affairs, which operates under the Commissioner, regulates the conduct of consumer transactions within a wide range of commercial activities including lay-by sales, door-to-door sales, pyramid selling, trading stamps, mock auctions, referral selling, insurance, and auctions. The Department may investigate complaints about advertising practices, including double ticketing, bait and false or misleading advertising. It may also investigate complaints into professional services, including those provided by doctors, dentists, architects, and members of the legal profession. In addition, the Department administers legislation relating to labelling and packaging, product safety, strata title units, and some Residential Tenancies matters. The Department also conducts extensive educational programmes for consumer and industry groups to inform them of their responsibilities towards maintaining a fair marketplace.

Commercial Tribunal of New South Wales

The Tribunal was established under Commercial Tribunal Act 1984. It is constituted by a full time Chairman appointed to represent members of occupational activities subject to the Tribunal's jurisdiction and those who deal with them. The Tribunal derives its jurisdiction from other Acts including the Credit (Administration) Act 1984, the Motor Dealers Act 1974 and the Travel Agents Act 1986. Its powers and functions are extensive including licensing and disciplining Credit Providers and Finance Brokers and determining allegations of unjust conduct against credit providers and motor dealers. It also hears appeals in respect of other occupation licenses, and provides significant and wide ranging relief with respect to credit contracts including instances of non compliance with the credit legislation or in cases of hardship and use of unjust contracts.

Consumer Claims Tribunals

The Consumer Claims Tribunals Act 1974, provides for the setting up of consumer claims tribunals to hear and determine claims concerning the supply of goods or the provision of professional and other services. A tribunal is constituted by a single referee, and may order the payment of money up to $3,000, or instruct that work to the value of $3,000 be done, in the settlement of claims. The tribunals are designed to arbitrate upon complaints which the Department of Consumer Affairs cannot resolve by mediation. They operate with a minimum of expense, formality and delay; legal representation is not permitted, except by agreement of the parties and with the approval of the relevant tribunal. The tribunals' orders are final and binding, and are not subject to appeal except in the areas of jurisdiction and natural justice.

Product Safety Committee

The Minister may prohibit the sale of particular goods or allow them to remain on sale subject to certain qualifications; for example, he may require warnings to be appended to them.

Regulations imposing requirements on design, construction etc. are in force over various categories of goods including child restraining devices in cars, night garments for children, toys, motor cycle helmets, fire extinguishers, refrigerators, freezers, safety footwear, folding tables, bean bags, kerosene heaters, sun tanning apparatus, pedal bicycles, sunglasses and chemical dispensers for use with domestic hoses or taps.

Motor Dealers and Repairers

The Department of Consumer Affairs is responsible for the administration of the Motor Dealers Act 1974. Motor dealers, and certain other categories of persons involved in the buying and selling of specific categories of motor vehicles or accessories, must be licensed and maintain records of their activities. In addition, specific warranties on new and used cars and motor vehicles as regards obligations to repair defects, must be given. The warranties, which cover a specified period of time or distance travelled after purchase, vary with the cash price of the vehicle.

The Motor Vehicle Repairs Act 1980 provides for motor vehicle repair businesses to be licensed to carry out only specific classes of work, and for persons employed to hold a tradesman's certificate in respect of the type of work they perform. The Motor Vehicle Repair Disputes Committee was established to resolve disputes between motor vehicle owners and repairers about the standard or fair cost of repair.

Register of Encumbered Vehicles (R.E.V.S.)

The Registration of Interests in Goods Act 1986 provides for the Commissioner of Consumer Affairs to maintain a public Register on which financial interests can be recorded respect of, initially, motor vehicles registered under the Motor Traffic Act 1909. This includes cars, trucks, caravans, trailers, motor bikes, farm machinery and articulated vehicles.

R.E.V.s provides an enquiry service whereby an intending purchaser can find out: *(a)* Whether any encumbrance is registered in respect of a vehicle and; *(b)* Whether the vehicle has been reported as stolen. Financiers who fail to register encumbrances will forfeit the right to repossess a vehicle from a bona fide new owner who has made an enquiry on the Register.

A Compensation Fund operates to compensate lenders who suffer a loss due to error in the administration of the Register itself.

The Credit Act 1984

The Department of Consumer Affairs administers the Credit Act 1984. The Credit Act is substantially uniform with legislation enacted in Victoria, Western Australia and the Australian Capital Territory.

The Credit Act regulates the provision of credit to persons (not corporations):

(a) for the purchase of goods or Services (but not for re-supply), where the cash price does not exceed $20,000 (unless the goods sold include farm machinery or a commercial vehicle).

(b) by way of loan of money, where the amount financed does not exceed $20,000 and the effective interest rate exceeds 14 per cent (unless the loan is secured by mortgage relating to farm machinery or a commercial vehicle.)

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Retail Sales of Goods, Australia* (Catalogue No. 8501.0) (Monthly); *Retail Sales of Goods, Australia* (8503.0) (Quarterly); *Wholesale Establishments, Details of Operations by Industry Class, Australia 1981-82* (Catalogue No. 8638.0). **A.B.S. Publications (N.S.W. Office):** *Wholesale Establishments: Detailed Statistics of Operations* (8606.1); *Census of Retail Establishments and Selected Service Establishments: Details of Operations by Industry Class* (8622.1); *Census of Retail Establishments and Selected Service Establishments: Hotels and Accommodation Establishments* (8624.1); *Tourist Accommodation, New South Wales* (8635.1); *Pocket Year Book of New South Wales* (1302.1); *Monthly Summary of Statistics* (1305.1).

Other Publications: Annual Reports of the Dairy Corporation and Liquor Administration (previously Licenses Reduction) Board, the Trade Practices Commission, (Commonwealth) Attorney- General's Department, Prices Surveillance Authority, Department of Consumer Affairs, and the Motor Vehicle Repair Industry Council. Commonwealth Government Directory for Attorney-General's Department.

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PRICES

CONTROL OF PRICES

Since 20 September 1948, prices in New South Wales have been subject to control by the State Government under the provisions of the Prices Regulation Act, 1948. In terms of the Act, the Minister for Consumer Affairs may declare any commodities and services to be subject to control, and may remove or re-impose the control on any item. The Prices Commission, which is constituted under the Prices Regulation Act, commenced operations in 1977 and is empowered to fix maximum prices, subject to Ministerial approval, at which declared commodities and services may be sold or supplied, and to investigate the price of any commodity or service (whether declared or not).

The general control of prices in New South Wales was progressively modified after 1952, and suspended on 15 April 1955. Controls were temporarily re-introduced on a limited range of commodities and services between July 1955 and September 1956. Price control on bread was re-introduced in December 1957, and maximum prices have since been fixed. Price control on motor spirit was introduced in May 1959, and discontinued in July 1984.

Many other commodities and services remain declared under the Prices Regulation Act, but maximum prices are not fixed for them. The holding of public inquiries has, in recent years, assumed a far greater significance in the Commission's function. Apart from the Prices Regulation Orders affecting bread, public inquiries have been held into the pricing of bread and petrol, the funeral industry, pest control in domestic premises, the motor vehicle replacement parts industry, the book industry and medical fees. Government controls over the prices of milk, gas and electricity are described later in this chapter.

PRICES SURVEILLANCE AUTHORITY

The Prices Surveillance Authority was established by the (Commonwealth) *Prices Surveillance Act 1983*, and commenced operations on 19 March 1984. The role of the Authority is to undertake surveillance of, and to hold inquiries into, prices of selected goods and services, at the direction, or with the approval of the Minister. In general, the goods and services selected for surveillance are those where effective competitive disciplines are not present and where price or wage changes have pervasive effects throughout the economy. Prices charged by State Government bodies, and prices of goods for export, are excluded from the ambit of the Authority.

The Authority has responsibility for the surveillance of the wholesale price of certain petroleum products, previously the responsibility of the Petroleum Products Pricing Authority, which was subsumed by the Prices Surveillance Authority.

RETAIL PRICE INDEXES

A retail price index is designed to measure the change over time in the level of retail prices in a selected field. The basic principle of an index is to select a list of commodities and services which are representative of the field to be covered, and to combine the prices of these commodities and services at regular intervals by the use of "weights" which represent the relative importance of the items in that field. In practice, the application of this principle over a period of years presents great difficulties because of the numerous changes which occur in the type, grade, and relative quantities of many of the items commonly used.

Basically, in the simplest method of compiling retail price indexes, the price of each item is multiplied by a fixed "weight", the product being an "expenditure". The sum of these

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products for all items for any period represents an "aggregate expenditure". The "aggregate expenditures" for successive periods are converted into an index equating the aggregate for a selected or "base" period to 100 (or some other convenient number), and calculating index numbers to this base by the ratio which the aggregate for each period bears to the aggregate for the base period.

Five series of retail price indexes had been published for Australia by the Commonwealth Statistician at various times before the current Consumer Price Index was introduced in 1960. Each of the indexes was continued until changed conditions required the compilation of an index more directly relevant to current conditions.

CONSUMER PRICE INDEX

The Consumer Price Index (CPI), which was introduced in 1960 and compiled retrospectively to September Quarter 1948, is designed to measure quarterly variations in the level of retail prices for goods and services which represent a high proportion of the expenditure of metropolitan wage and salary earner households. The index does not measure the absolute cost of any standard of living, or changes in the cost of living that result directly from changes in the mode of living or level of consumption.

The index covers a large and representative "basket" of commodities and services currently arranged in eight groups: food; clothing; housing; household equipment and operation; transportation; tobacco and alcohol; health and personal care; and recreation and education. Each group is in turn divided into sub-groups and expenditure classes. Index numbers at the "group" and "all groups" levels are published each quarter for each State capital city, Canberra and Darwin, and for the weighted average of the eight capital cities. Sub-group and some expenditure classes index numbers are published for the weighted average of the eight capital cities.

The CPI is reviewed at about five-yearly intervals to ensure that it reflects current household spending habits and the range of goods and services being bought. The CPI based on the revised list of items and their weights is linked to previous series to provide a continuous series which reflects only price variations and not differences in costs of the old and new "baskets" of goods and services.

An important change was made in the CPI "basket" in the new CPI series introduced in March quarter 1987 following completion of the most recent review. House prices are no longer included directly in the CPI. Instead, a new expenditure class covering housing mortgage interest charges has been included. New expenditure classes for consumer credit charges, optical services, watches and clocks and veterinary services have also been introduced, and the range of fruit and vegetables priced has been expanded to include items not available at all times of the year.

The CPI "basket" of goods and services covers items which are considered representative of spending patterns of metropolitan wage and salary earner households, and whose prices can be associated with an identifiable and specific quantity and quality of a commodity or service. Income taxes and personal savings do not form part of the CPI because they cannot be clearly associated with the purchase of a specific quality of a good or service.

Price movements are monitored in those retail outlets and other establishments where metropolitan wage and salary earner households normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores, footwear stores, restaurants, motor vehicle dealers and service stations, dental surgeries, hotels and clubs, schools, and hairdressers. Items like rail fares, electricity and gas charges, telephone charges, and local authority rates are collected from the appropriate authorities. Information on rent is obtained from property management companies and public housing authorities. In total, some 100,000 separate price quotations are collected each quarter.

The prices used in the Consumer Price Index are those that any member of the public would have to pay on the pricing day to purchase the specified good or service. Any sales or excise taxes which the consumer must pay when purchasing specific items are included. Sale prices, discount prices, and "specials" are reflected in the Consumer Price Index so long as the items concerned are of normal quality (that is, not damaged or shop soiled), and are offered for sale in reasonable quantities. To ensure that the price movements reflect the experience of the bulk of the metropolitan population, the brands and the varieties of the items which are priced are generally those which sell in the greatest volume.

The following table shows the index numbers for each group and for "all groups" of the Consumer Price Index for Sydney over the last six years. The annual index numbers are a simple average of the index numbers for the four quarters of each financial year.

Consumer Price Index, Sydney
(Base of each group index: 1980-81 = 100.0)

Group	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
Food	107.9	117.1	126.2	132.8	142.6	153.9
Clothing	106.8	114.1	121.2	128.5	138.7	151.6
Housing	111.1	121.7	127.4	134.3	146.6	159.4
Household equipment and operation	110.7	126.1	134.0	139.6	150.5	160.4
Transportation	110.3	127.0	136.8	146.9	159.5	177.6
Tobacco and alcohol	109.9	126.9	140.9	152.6	167.8	187.5
Health and personal care	121.8	149.8	140.7	116.4	126.2	146.3
Recreation and education *(a)*	n.a.	107.5	114.6	118.4	128.9	140.2
All groups	**110.2**	**123.4**	**130.9**	**136.0**	**147.5**	**161.4**

(a) Base : March Quarter 1982 = 100.0

RETAIL PRICES OF FOOD AND OTHER ITEMS

The average retail prices of selected food and other items in Sydney in June Quarter 1982 and later years are shown in the next table. The prices are the averages of prices for specified grades, qualities, brands, etc. charged by a number of selected retailers throughout the metropolitan area. Thus the prices do not purport to be the actual averages of all retail sales of these items but should be regarded as no more than approximate indicators of price levels and price changes for them.

Average Retail Prices of Food and Other Items, June Quarter, Sydney
(cents)

Item	*Unit*	*1982*	*1983*	*1984*	*1985*	*1986*	*1987*
Dairy produce —							
Milk, bottled, delivered	2 x 600ml bottles	74	78	82	86	91	94
Cheese, processed	500g pkt	160	*(a)*220	225	228	201	229
Butter	500g	146	164	161	159	163	177
Cereal products —							
Bread, white loaf, sliced, super-market sales *(b)*	680g	73	78	88	96	105	113
Flour, self raising *(c)*	1 kg/2 kg pkt	61	74	155	171	171	202
Rice, medium grain *(d)*	500g/1 kg pkt	42	44	82	81	89	93
Meat —							
Beef							
Rump steak	1 kg	634	739	744	787	814	851
Chuck steak	1 kg	367	435	438	457	451	492
Lamb							
Leg	1 kg	373	423	381	404	417	463
Loin chops	1 kg	398	458	405	432	429	508
Chicken, frozen	1 kg	232	245	231	277	255	300
Bacon, middle rashers	250g pkt	203	217	215	220	221	222
Fruit and vegetables —							
Potatoes	1 kg	44	64	57	49	76	76
Onions	1 kg	68	64	100	70	70	85
Peaches, canned	825g	86	100	113	120	131	129
Oranges	1 kg	82	80	116	125	113	128
Other food —							
Eggs	55g, dozen	147	164	154	160	155	158
Sugar, white	2 kg pkt	101	115	128	133	135	155
Jam, strawberry	500g jar	115	118	131	133	150	163
Tea	250g pkt	78	99	138	156	143	144
Coffee, instant	150g jar	277	311	293	374	569	486
Margarine, polyunsaturated	500g tub	91	101	104	128	112	122
Other items —							
Beer, full strength, chilled	750ml bottle	125	145	158	165	179	194
Pet food *(e)*	405g/415g	53	54	58	61	64	69
Laundry detergent	1 kg	216	247	271	278	316	339
Toilet soap	2 x 125g	77	80	96	105	112	112
Petrol, super grade	1 L	36.6	40.7	48.7	54.6	48.6	53.9

(a) From June Quarter 1983 the price is for sliced and wrapped processed cheese and is therefore not comparable with previous prices. *(b)* Prior to June Quarter 1983, the specification was for "milk loaf". *(c)* After June Quarter 1983 price is for 2 kg. *(d)* After June Quarter 1983 price is for 1 kg. *(e)* From 1985 price is for 415g.

MILK PRICES

Responsibility for the regulation and control of the production, quality, supply and distribution of milk and the production, quality and storage of dairy products and margarine for the purposes of ensuring the wholesomeness and purity of milk, dairy products and margarine in the interests of public health rests with the New South Wales Dairy Corporation.

The New South Wales Dairy Corporation is empowered to fix prices for all white milk sold in N.S.W. (White milk is drinking milk such as whole milk and low-fat milk which has not been additionally processed e.g. flavoured). Prices payable by the Corporation to dairy men (farmers), prices paid by agents to the Corporation (distribution companies organised for handling milk on a large scale act as agents for the Corporation in receiving milk, and purchase their supplies from the Corporation for distribution, through vendors, to consumers), and wholesale and retail prices of milk in N.S.W. are all fixed by the Corporation.

Quarterly reviews of prices are undertaken based on a series of cost indexes prescribed under the regulations of the Dairy Industry Act, 1979. The Corporation may also undertake a prices review at other times. The Minister for Consumer Affairs may refer an order of the Corporation fixing the retail price of milk to the Prices Commission. The Commission may confirm the order, recommend that the order be revoked, or recommend that the order be revoked and another order be made by the Corporation fixing a price deemed appropriate by the Commission.

Further details regarding the New South Wales Dairy Corporation are contained in the subdivision "Dairy Products" in Chapter 16 "Agriculture" and the subdivision "Marketing of Foodstuffs" in Chapter 20 "Internal Trade".

The fixed prices for milk accepted by the Corporation (and its predecessors) for distribution in Sydney at each date of change since January 1985 are shown in the following table.

Prices for Milk Distributed in Sydney Metropolitan District (cents per litre)

			Wholesale Price							
			To milk-round vendor			*To shop vendor*		*Retail Price (a)*		
Date of Change	*Gross price payable to dairymen*	*Price payable to N.S.W Dairy Corporation by agents*	*Bulk*	*In 600 ml bottle*	*In 1 L carton*	*In 600 ml bottle*	*In 1 L carton*	*In 600 ml bottle*	*In 1 L carton*	*In 2 L plastic bottle*
1985: Jan. 11	34.05	39.11	53.26	54.41	56.31	62.24	64.18	70.00	72.00	71.00
Aug. 2	34.49	39.59	55.26	57.71	58.26	65.57	66.17	73.33	74.00	73.00
Sept. 13	34.49	39.59	55.26	56.05	58.26	63.91	66.17	71.67	74.00	73.00
Dec. 6	34.89	39.20	55.26	56.05	58.26	63.91	66.17	71.67	74.00	73.00
1986: Jan. 17	35.39	39.80	56.84	57.36	59.84	65.53	68.13	73.33	76.00	75.50
May 23	36.60	41.16	59.25	58.72	62.24	67.17	71.07	75.00	79.00	78.00
Nov. 14	36.60	41.28	59.25	58.72	63.59	67.17	73.00	75.00	81.00	79.00
1987: Feb. 6	37.30	41.94	60.62	59.86	64.96	68.79	74.94	76.67	83.00	81.00
Mar. 13	37.37	41.94	60.62	59.86	64.96	68.79	74.94	76.67	83.00	81.00
Apr. 24	37.37	42.13	60.62	59.86	64.96	68.79	74.94	76.67	83.00	81.00
Jul. 17	37.52	43.18	62.12	61.13	66.46	70.40	76.88	78.33	85.00	82.50

(a) Maximum prices are shown. Does not include delivery fee of 1 cent per unit and a maximum of 2 cents per delivery.

BREAD PRICES

The maximum retail prices of bread were fixed in terms of the Prices Regulation Act, 1948 by the Prices Commissioners until 1977 and then by the Prices Commission until October 1980 when, under the Bread (Prices Determination) Act, 1980, price control of bread was temporarily transferred to the State Government. From 14 May 1982, following a public inquiry held by the Prices Commission in late 1981, the determination of maximum retail prices for specified categories of bread is again being undertaken by the Prices Commission in terms of the Prices Regulation Act. The maximum retail prices of a 680 gram loaf of sliced and wrapped white bread in the Sydney metropolitan area, at each date of change since January 1985 were as follows.

Date of change of price	*Price at shop (a) (cents)*	*Date of change of price*	*Price at shop (a) (cents)*
1985: January 23	93	1986: March 17	105
April 26	98	July 7	107
August 9	100	November 3	110
December 2	103	1987: April 20	113

(a) There is a one cent surcharge per loaf of delivered bread.

For purposes of fixing bread prices, the Sydney metropolitan area comprises (broadly) the area within a 36 kilometres radius of the GPO plus most of the City of Blacktown and parts of the Cities of Penrith and Campbelltown. Bread prices are affected by such factors as the price of wheat, which is fixed by the Australian Wheat Board under the stabilisation scheme described in the subdivision "Wheat" in Chapter 16 "Agriculture".

GAS AND ELECTRICITY CHARGES

GAS CHARGES

Reticulated gas is supplied to consumers in the metropolis and larger towns of New South Wales by 6 privately-owned companies (including companies related to the Australian Gas Light Company) and 10 local government authorities.

Maximum prices and standards of heating value, purity and pressure are prescribed by the Gas and Electricity Act, 1935, for gas supplied to consumers by meter. Prices may be increased only on the recommendation of a Board of Inquiry appointed under the Act.

The domestic price of gas in the Sydney area is a flat charge per megajoule after minimum usage but for industrial and commercial tariff customers and for customers in other areas the rates are generally quoted in the form of block rates in which the price per unit decreases as consumption increases. The unit of charge is a megajoule.

The basic rates being charged at 1 January 1987 for gas supplied in the Sydney metropolitan area by AGL Sydney Limited were as follows:

Domestic general rate		*Industrial and commercial general rate*	
Megajoules per quarter	*Cents per megajoule*	*Megajoules per quarter*	*Cents per megajoule*
First 566 or part thereof	Flat $10.00 per quarter	Standing charge	$15.00 per quarter
		First 150,000	0.84813
Additional over 566	0.88313	Additional over 150,000	0.64813

Special domestic rates were available for storage hot water and heating systems. Special industrial and commercial rates were available for large consumers and for appliances in continuous use.

For further details on the production and distribution of gas in New South Wales see Chapter 17, "Mining and Energy".

ELECTRICITY CHARGES

Electricity generated by the Electricity Commission of N.S.W. (which is the major generating authority in the State) is supplied in bulk, through its interconnected system, to distributing authorities (mainly county councils), to the State Rail Authority of New South Wales for rail transport, and to certain large industrial consumers. For further details on the Commission and electricity generation and distribution in New South Wales, see Chapter 17, "Mining and Energy".

The prices being charged at 1 January 1987 for electricity supplied by the Sydney County Council (the largest distributing authority) were as follows: *Domestic Tariff*: First 200 kWh per quarter at 10.21c per kWh, remainder at 7.39c per kWh; *General Supply Tariff*: First 200 kWh per quarter at 19.12c per kWh, remainder at 12.67c kWh. Persons holding Pensioner Health Benefits Cards and certain classes of war pensioners are entitled under certain conditions (on application to the Council) to obtain a rebate of $14.40 per quarterly account. For premises used wholly or principally as hospitals or schools, and for other specified users set out in the Council's price list, a special *Institution Rate* (First 200 kWh per quarter at 16.96c per kWh, remainder at 9.67c per kWh) is available.

Customers taking supply at the above tariffs will be required to pay for a minimum of 100 kWh's per account.

Special rates are available for electricity used, during restricted hours, for industrial purposes, process heating, storage hot water and heating systems.

WHOLESALE PRICE INDEXES

The Australian Bureau of Statistics compiles a range of wholesale price indexes relating to materials used and articles produced by defined sectors of the Australian economy. The following indexes relating to materials used are compiled: Price Index of Materials Used in House Building; Price Indexes of Materials Used in Building Other than House Building; Price Indexes of Materials Used in Manufacturing Industries; and Price Indexes of Copper Materials (used in the manufacture of specific types of electrical equipment). The Bureau also compiles the Price Indexes of Articles Produced by Manufacturing Industry.

There are also two foreign trade price indexes, the Export Price Index and the Import Price Index. The Export and Import Price Indexes are described in the "Overseas Trade" division of Chapter 19 "External Trade".

Each index is calculated using fixed weights. Prices are generally collected as at the mid-point of each month except in the case of the Price Indexes of Materials Used in Manufacturing Industries and the Export Price Index, for which average monthly prices are mainly used, and the Import Price Index, for which prices used are the weighted average of all shipments (priced on a "free on board" (f.o.b.) country of origin basis) imported during the quarter.

The Import Price Index is compiled and published quarterly and all other indexes are compiled and published monthly. Published index numbers for financial years are simple averages of the relevant monthly or quarterly index numbers. Annual index numbers for a number of these indexes are shown below. More detailed information concerning methods used in compiling these indexes are shown in the monthly or quarterly bulletins published for each index, as listed at the end of this chapter. Information on the weighting patterns for each index is available from the Bureau on request.

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING

This index measures changes in prices of selected materials used in the construction of houses in each of the six State capital cities.

The selected materials are arranged in thirty-eight items, and compiled for each of the six State capital cities and for the six State capital cities combined. Different weighting patterns of materials are used for each State. The items and weights were derived from reported values of each material used in selected representative houses constructed in or about 1985-86.

In general the point of pricing is delivered on site. As far as possible, actual transaction prices that take into account such variations as sales tax, discounts and freight to site are used.

Details of the All Groups Index of House Building Materials Used in Sydney during the last six years are shown below:

1981-82	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
75.2	81.0	86.0	93.1	100.0	106.2

The components of this Index were varied in July 1985 when the index was rebased. Changes to these component indexes since the 1985-86 base of 100 are as follows:

Ready mixed concrete	107.6
Clay bricks	106.9
Structural timber	102.9
Cupboards and built-in furniture	108.4
Builders' hardware	109.5
Aluminium windows and doors	106.4
Timber doors and frames	100.0
Metal sheet, fascia and guttering	111.0
Ceramic tiles	109.5
Paint	105.9
All groups	106.2

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING

The Price Index of Materials Used in Building Other than House Building measures changes in prices of selected materials used in the construction of buildings other than houses. The index is calculated monthly.

For the six State capital cities, the items included in the index were selected and allocated weights in accordance with the estimated average values of materials used in the construction of buildings, other than houses, commenced in the six State capital cities in the three years ended June 1977. The same weighting pattern is used for each of the six State capital cities, and index numbers for a State capital city are calculated by applying this single weighting pattern to price measures for that city. The index for the combined six State capital cities is a weighted average of individual city indexes, the weighting being determined by the extent of building other than house building in each city. An index for Darwin is also published. The list of selected items as well as the weights of the items for this index are slightly different from those for the other capital cities.

Prices for the index are collected at the mid-point of each month and, in general, the point of pricing is "delivered on site". Sales taxes levied on building materials are included in the prices used.

Details of the price index of materials used in building other than house building in Sydney are shown in the following table.

Price Index of Materials Used in Building Other than House Building in Sydney (Base of each index: 1979-80 = 100.0)

Particulars	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
Selected major materials —					
Structural timber	132.8	136.3	145.8	156.2	162.0
Clay bricks	122.7	134.1	144.9	152.2	156.8
Ready mixed concrete	153.6	155.1	161.0	165.5	175.0
Precast concrete products	143.1	152.2	157.4	165.7	174.4
Galvanised steel decking, cladding etc.	142.3	152.8	157.9	165.4	180.1
Structural steel	136.6	137.8	141.1	147.3	158.7
Reinforcing steel bar, fabric and mesh	138.1	145.1	146.0	154.6	160.9
Aluminium windows	138.1	148.0	157.0	167.9	177.1
Steel windows, doors, louvres, etc.	145.1	155.2	163.9	175.4	183.8
Builders hardware	139.3	149.1	157.5	177.9	203.5
Sand, aggregate and filling	193.2	202.8	216.6	233.0	245.8
Carpet	127.2	133.6	145.0	161.8	189.5
Paint	150.0	165.3	182.9	195.7	207.3
Non-ferrous pipes	104.6	112.2	118.6	127.4	133.3
Special combinations of materials —					
Plumbing materials	137.4	149.3	155.8	167.1	182.8
Electrical materials	137.8	147.3	156.9	172.1	196.4
Mechanical services components	138.5	146.6	156.6	177.4	190.7
All groups excluding electrical materials and mechanical services	142.0	148.5	r155.2	164.8	176.6
Total, All groups	**141.1**	**148.1**	**r155.5**	**167.4**	**181.0**

PRICE INDEXS OF MATERIALS USED IN MANUFACTURING INDUSTRIES

These indexes measure changes in the cost of materials and fuels used in Australian manufacturing industries.

Each index has a reference base 1984-85 = 100.0. Items and weights were, with a few exceptions, derived from estimated values of manufacturing usage in 1977-78. The indexes are on a net "sector" basis. Each index relates only to those materials which are used in defined "sectors" of Australian manufacturing industry and which have been produced overseas or outside that "sector" in Australia. Pricing for these indexes is at the point at which the material physically enters the defined "sector".

Indexes are compiled monthly for the manufacturing industry as a whole (Division C of the Australian Standard Industrial Classification (ASIC)), for selected manufacturing "sectors" and for selected categories of Australian and imported materials.

Details of the movement of the All Australian Manufacturing Industry Index for the last six years are shown below:

	1981-82	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
All manufacturing industry index	85.0	91.2	95.3	100.0	104.9	105.4
Imported materials	84.6	90.2	91.8	100.0	111.8	117.3
Home produced materials	85.3	92.8	96.9	100.0	101.2	99.1

Index numbers for these Subdivisions/Groups are available only from July 1984. These and other index groups with a reference base 1984-85 = 100.0 replace selected previous index groups (reference base 1968-69 = 100.0). A technical note showing a method of linking these revised groups to the previous index groups is included in catalogue 6411.0 issued December 1985.

The Subdivision/Groups of the rebased index (1984-85 = 100) are shown below:

	1985-86	*1986-87*
Food, beverages and tobacco	101.7	108.6
Textiles	110.6	125.6
Clothing	114.6	126.9
Footwear	110.2	123.9
Wood, wood products and furniture	109.5	118.1
Paper, paper products, printing and publishing	107.8	115.4
Basic chemicals and other chemical products	112.5	116.1
Petroleum and coal products	95.9	72.1
Non-metallic mineral products	103.5	110.5
Basic metal products	106.5	108.4
Fabricated metal products	108.8	115.2
Transport equipment	113.7	130.2
Other machinery and equipment	110.9	120.7
Miscellaneous manufacturing	108.1	118.3

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY

These indexes, which are compiled monthly and were first published in 1976, measure changes in prices of articles produced by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). The indexes are on a net sector basis; that is, they relate in concept only to those articles which are produced in defined "sectors" of Australian manufacturing industry for sale or transfer to other sectors, for export, or for use as capital equipment. Articles which are sold or transferred to other establishments within the sector for further processing (as materials, components, fuels, etc.) are excluded.

Indexes are compiled monthly for the manufacturing industry as a whole and for each of the twelve subdivisions of the Manufacturing Division of ASIC.

The pricing and weights for the index for the Manufacturing Division, the *All Manufacturing Industry Index,* reflect sales and transfers of articles at the point of exit from the Manufacturing Division while the pricing and weights for the subdivision indexes reflect, in general, sales and transfers of articles at the point of exit from the respective subdivisions.

The items included in these indexes were selected on the basis of values of articles produced in 1971-72 by establishments classified to the Manufacturing Division of the ASIC in the Census of Manufacturing Establishments. The selected items were allocated weights in accordance with estimated net sector production in the year 1971-72 valued at the relevant prices applying in the reference base year 1968-69.

Prices used are the manufacturers' selling prices exclusive of excise and sales tax, and reflect the effects of subsidies and bounties paid to manufacturers.

The next table shows the twelve *net subdivision indexes* and the *All Manufacturing Industry Index* for Australia.

Price Indexes of Articles Produced by Manufacturing Industry, Australia (Base of each index: 1968-69 = 100.0)

Net subdivision indexes	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87*
Food, beverages, and tobacco	301.9	328.2	355.5	377.0	399.1	428.9
Textiles	270.6	286.7	305.8	322.6	348.2	383.5
Clothing and footwear	298.1	316.0	333.2	352.1	376.7	407.2
Wood, wood products, and furniture	388.4	424.9	455.4	494.3	530.4	569.7
Paper, paper products, and printing	346.0	390.4	413.6	442.2	472.4	513.4
Chemical, petroleum, and coal products	400.9	442.4	456.8	480.8	499.9	467.9
Glass, clay, and other non-metallic mineral products	337.2	382.1	404.0	429.2	449.8	473.7
Basic metal products	315.3	345.5	365.5	381.0	396.4	422.5
Fabricated metal products	414.2	452.5	480.1	505.3	534.4	566.9
Transport equipment	303.2	335.4	358.9	378.7	417.5	479.9
Other industrial machinery and equipment, and household appliances	320.7	353.1	372.6	390.2	417.6	449.6
Miscellaneous manufacturing products	289.5	313.4	342.1	361.4	388.1	424.2
All Manufacturing Industry Index	**328.9**	**360.2**	**382.8**	**404.8**	**430.3**	**458.5**

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Consumer Price Index* (Catalogue No. 6401.0); *A Guide to the Consumer Price Index* (6440.0); *The Australian Consumer Price Index: Treatment of Home Ownership Costs* (6441.0); *Review of the Consumer Price Index* (6450.0); *Average Retail Prices of Selected Items, Eight Capital Cities* (6403.0); *Price Index of Materials Used in Building Other than House Building, Six State Capital Cities and Darwin* (6407.0); *Price Index of Materials Used in House Building, Six State Capital Cities* (6408.0); *Price Indexes of Materials Used in Manufacturing Industries, Australia* (6411.0); *Price Indexes of Articles Produced by Manufacturing Industry, Australia* (6412.0); *Price Indexes of Copper Materials, Australia* (6410.0); *Import Price Index, Australia* (6414.0); *Export Price Index, Australia* (6405.0).

Other Publications: Annual Reports of: the Commissioner for Consumer Affairs; the New South Wales Dairy Corporation; the Sydney County Council; the Electricity Commission of New South Wales; and the Australian Gas Light Company.

22

PUBLIC FINANCE

STRUCTURE OF PUBLIC FINANCE

The collection and expenditure of public moneys in New South Wales are controlled by three groups of authorities:

- *(a)* the Government of the Commonwealth of Australia;
- *(b)* the Government of the State of New South Wales, including bodies authorised by State Acts to administer such services as transport and water and sewerage; and
- *(c)* Municipal, Shire, and County Councils (local government bodies operating in defined areas).

The revenue of the Commonwealth Government is derived largely from customs and excise duties, and taxes on income and sales. Its expenditure on government account, after allowing for payments to the States and local government, is mainly on social security and welfare, health, tertiary education, defence and repatriation services, the control of overseas trade and aviation, administration of territories, representation abroad, subsidies and public debt charges.

Business undertakings and financial institutions owned by the Commonwealth Government derive revenue from charges for the use of the services they administer and from financing operations. In the main, their gross revenue is not included in that of the government, but some of them are required to pay part of their net income to the government.

The revenue of the State Government is derived mainly from its entitlement under the personal income tax sharing arrangements between the Commonwealth Government and the States, from State taxation, and charges for services rendered. The expenditure of the State on governmental account includes the cost of such services as education (mainly primary and secondary), public health, law and order, social aid, the development and maintenance of economic services (roads, bridges, harbours, electricity generation and distribution, etc.), grants to public transport authorities and services to agriculture. Public debt charges which are not attributable to services controlled by the statutory bodies are borne by governmental account.

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The revenue of the State statutory bodies administering railways, buses, harbour services, water and sewerage services, electricity services, etc., is derived mainly from charges for the use of services which they provide, and all are ultimately subject to the control of the State Government. The Main Roads Department, also a statutory body, derives revenue principally from the Commonwealth and motor taxation.

Local government bodies levy rates on the capital value of ratable lands within the areas administered by them. They provide services to meet local needs, such as streets and roads, recreation areas, sanitary and garbage services, the supervision of building operations, and, in some cases, they also undertake the reticulation of electricity, water, etc. In general, the cost of these services is defrayed from the rates, but charges are imposed for services rendered.

The public borrowings of both the Commonwealth and State governments are co-ordinated by the Australian Loan Council in accordance with the Financial Agreement of 1927 as revised. The central loan raisings for New South Wales are made by the Commonwealth for and on behalf of the State, and are described later in this chapter. The financial servicing operations of the New South Wales Treasury Corporation are also described later in this chapter.

Local government bodies and statutory bodies have power to raise domestic loans, subject to the approval of the Governor. In many cases approval of the Australian Loan Council is required for the borrowing program. Overseas borrowings are also subject to the approval of the Australian Loan Council.

TAXATION

The amount of Commonwealth taxation (taxes, fees, fines, etc.) borne by the people of New South Wales cannot be determined precisely. Portion of customs and excise revenues collected in the State relates to goods consumed in other States while portion of the Commonwealth income tax collected in New South Wales relates to residents of other States (and vice versa).

COMMONWEALTH TAXES

Income Tax

Taxation on incomes has been imposed by the Commonwealth Government since 1915-16. Under a uniform tax arrangement introduced in 1942, Commonwealth income tax, levied at uniform rates throughout Australia, replaced the separate taxes formerly levied by the Commonwealth Government and each of the States. Since then, the Commonwealth Government has been the only authority in Australia levying income tax.

A detailed description of the operation of Commonwealth income tax appears on pages 542-555 of Year Book Australia 1986 (No. 70).

Assessments for Individuals. A comparison of the assessments of tax on incomes for individuals in New South Wales and Australia over the latest six years available is shown in the following table.

Income Tax Assessments for Individuals, New South Wales and Australia

	New South Wales			*Australia*		
Income year	*Number of taxpayers ('000)*	*Taxable income ($m)*	*Net tax assessed ($m)*	*Number of taxpayers ('000)*	*Taxable income ($m)*	*Net tax assessed ($m)*
1979-80	2,029	23,743	5,262	5,663	65,214	14,173
1980-81	2,111	27,303	6,086	5,973	75,839	16,527
1981-82	2,186	31,644	7,262	6,226	87,948	19,779
1982-83	2,135	33,923	7,571	6,139	95,646	20,975
1983-84	2,173	35,961	8,444	6,339	103,164	23,852
1984-85 *(a)*	2,161	38,028	9,116	6,547	112,751	26,420

(a) From 1984-85 figures exclude trustee assessments and manually assessed and issued assessments.

The next table shows details of the number of taxpayers, taxable income, and tax assessed, dissected by grade of taxable income.

Income Tax Assessments for Individuals, New South Wales 1984-85 Income Year: Grade of Taxable Income

Grade of taxable income ($)	*Number of taxpayers*	*Taxable income ($'000)*	*Net tax assessed ($'000)*	*Proportion of total (per cent)*		
				Taxpayers	*Taxable income*	*Net tax assessed*
			New South Wales *(a)*			
Under 5,000	*38,091*	*155,304*	*5,925*	*1.8*	*0.4*	*0.1*
5,000 to 5,999	98,138	545,470	20,641	4.5	1.4	0.2
6,000 to 6,999	111,074	720,032	50,601	5.1	1.9	0.6
7,000 to 7,999	94,432	708,801	73,949	4.4	1.9	0.8
8,000 to 8,999	88,215	749,304	91,304	4.1	2.0	1.0
9,000 to 9,999	84,029	797,859	108,404	3.9	2.1	1.2
Total, under 10,000	*514,079*	*3,676,870*	*350,924*	*23.8*	*9.7*	*3.8*
10,000 to 10,999	83,346	874,770	130,142	3.9	2.3	1.4
11,000 to 11,999	83,424	960,906	153,372	3.9	2.5	1.7
12,000 to 12,999	88,170	1,102,683	186,980	4.1	2.9	2.1
13,000 to 13,999	96,160	1,298,725	233,126	4.5	3.4	2.6
14,000 to 14,999	105,409	1,429,747	287,415	4.9	4.0	3.2
Total, under 15,000	*970,788*	*9,443,701*	*1,341,959*	*44.9*	*24.8*	*14.7*
15,000 to 15,999	105,218	1,630,705	317,493	4.9	4.3	3.5
16,000 to 16,999	101,280	1,670,780	335,204	4.7	4.4	3.7
17,000 to 17,999	100,379	1,756,412	361,174	4.6	4.6	4.0
18,000 to 19,999	187,741	3,463,079	758,636	8.7	9.4	8.3
20,000 to 21,999	147,321	3,087,443	710,934	6.8	8.1	7.8
22,000 to 23,999	119,218	2,739,006	683,471	5.5	7.2	7.5
24,000 to 25,999	94,994	2,370,172	629,691	4.4	6.2	6.9
26,000 to 29,999	137,888	3,836,112	1,095,366	6.4	10.1	12.0
30,000 to 39,999	139,176	4,720,438	1,415,373	6.4	12.4	16.6
40,000 to 49,999	33,057	1,454,795	550,017	1.5	3.8	6.0
50,000 or more	23,747	1,755,349	816,428	1.1	4.6	9.0
Total, all incomes	**2,160,807**	**38,028,092**	**9,115,946**	**100.0**	**100.0**	**100.0**

(a) Excludes trustee assessments and manually assessed and issued assessments.

Customs and Excise Duties

The power to impose customs and excise duties in Australia is vested exclusively in the Commonwealth Parliament. Particulars regarding the customs duty and excise tariffs are shown in Chapter 19, "External Trade".

A special surcharge has been imposed on diesel fuel and motor spirit excise duties since August 1982 to fund the Australian Bicentennial Road Development Program. Further details are described in Chapter 14, "Transport and Communication".

Sales Tax

Sales tax has been imposed by the Commonwealth Government since 1930. It applies to goods only, and not to personal or professional services as such, or to sales of realty or intangible property.

Bank Account Debits Tax

The Commonwealth Government imposed a tax from 1 April 1983 on debits to cheque accounts kept with banks in Australia.

Levies and Charges on Primary Products

The proceeds of levies and charges imposed by the Commonwealth Government on the production, sale, or export of certain primary products (e.g. wool, wheat, livestock slaughtered, dairy produce, poultry, and canned, dried, and fresh fruit) are used for special purposes in the industry concerned, and are therefore to be distinguished from taxation for general revenue purposes. Particulars of the main levies and charges on primary products are given in Chapter 16, "Agriculture".

STATE AND LOCAL TAXATION

The main taxes collected by the State Government of New South Wales are described below. The system of local rating in the State is described in the division "Local Government Finance" later in this chapter. Statistics of local taxation (rates, etc.) are shown with State taxation (taxes, fees, fines, etc.) in the following table.

The concept of taxation adopted in the following table includes all levies designed to raise revenue for general government purposes. All compulsory payments (i.e. fees, fines, penalties, etc.) to a government authority, which do not entitle the payer to a direct tangible benefit, have been included.

State and Local Taxation in New South Wales ($'000)

Type of tax	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86p*	
					$'000	*$ Per head of mean population*
State taxation —						
Pay-roll tax	1,017,989	1,101,304	1,127,907	1,241,379	1,364,380	247.67
Land taxes	143,782	186,067	188,885	225,616	295,894	53.71
Taxes on immovable property n.e.c.	546	487	549	641	1,198	0.22
Probate and succession duties	72,746	23,134	9,445	3,718	3,603	0.65
Stamp duties on financial and capital transactions	425,453	360,786	431,455	516,926	630,827	114.51
Financial institutions transactions taxes *(a)*	—	55,554	111,792	122,277	137,250	24.91
Levies on statutory corporations	11,031	10,891	12,427	14,749	16,148	2.93
Taxes on government lotteries	93,794	139,843	145,588	149,705	165,302	30.01
Taxes on private lotteries	3,260	4,196	3,774	3,452	4,395	0.80
Poker machine taxes	153,090	152,770	158,018	167,537	179,739	32.63
Race betting taxes	116,910	127,130	144,908	158,931	182,571	33.14
Insurance companies contributions to fire brigades	62,399	71,161	78,967	84,954	91,399	16.59
Taxes on insurance n.e.c. *(b)*	87,060	145,096	182,485	153,502	153,620	27.89
Motor vehicle registration fees and taxes *(c)*	275,444	329,109	382,678	410,392	444,169	80.63
Stamp duty on motor vehicle registration	69,903	70,036	83,997	101,343	114,567	20.80
Drivers' licences	36,767	46,998	52,121	63,739	7 883	12.87
Road transport and maintenance taxes	1,334	2,115	2,106	2,929	3,151	0.57
Petroleum products and franchise taxes	126	154,297	186,936	209,872	232,384	42.18
Tobacco franchise taxes	45,424	50,220	69,108	77,597	112,845	20.48
Liquor franchise taxes	98,353	112,133	119,548	127,512	138,198	25.09
Taxes on use of goods and performance of activities *(d)*	6,088	7,595	5,993	6,028	6,095	1.11
Building fees	953	1,003	1,107	1,748	1,085	0.20
Fees generally paid by producers n.e.c.	22,241	33,187	38,408	42,210	64,244	11.66
Fees generally paid by households n.e.c.	1,397	2,156	2,748	2,754	4,819	0.87
Fees paid by both producers and households	61,844	71,246	74,144	80,607	80,095	14.54
Fines	70,575	73,858	86,833	92,070	87,898	15.96
Total State taxation	**2,878,509**	**3,332,372**	**3,701,927**	**4,062,188**	**4,586,759**	**832.61**
Local authority taxation*(e)* —						
Rates *(f)*	628,800	728,914	801,340	868,474	946,167	171.75
Licences, fees and fines	34,124	29,803	32,188	38,955	42,508	7.72
Total local authority taxation	**662,925**	**758,717**	**833,528**	**907,429**	**988,675**	**179.47**
Total State and local taxation	**3,541,434**	**4,091,089**	**4,535,455**	**4,969,617**	**5,575,434**	**1,012.08**

(a) See "State Stamp Duties" later in this chapter for current rate. *(b)* Includes such payments as stamp duties on insurance (other than stamp duties on third party insurance premiums). *(c)* Excludes stamp duty on motor vehicle registration. *(d)* Consists of payments by colliery proprietors, for compensation for mines subsidence and contributions to mine rescue stations. *(e)* Figures shown are for year ended 31 December, preceding. *(f)* Excludes ex gratia receipts in lieu of rates.

State Pay-roll Tax

A tax on wages paid or payable by employers has been imposed by the State since 1 September 1971 under the provisions of the Pay-roll Tax Act, 1971.

As well as private employers, State Government departments, State undertakings, local government authorities (in respect of business activities only), and certain Commonwealth Government authorities are subject to the State tax. However, the State Governor, official representatives of other countries, public and non-profit private hospitals, certain non-profit private schools, and religious or benevolent institutions are exempt from the tax. There are some pay-roll tax concessions offered to employers, in order to encourage them to employ and train more young people and increase employment.

Subject to some exemptions, the tax is levied at the rate of 5 per cent principally on the amount of wages paid in respect of services rendered in New South Wales.

A supplementary pay-roll tax of 1 per cent is payable where the total wages of the employer (or group of employers) is $1m or more. A deduction of $10,000 is allowed but this deduction is reduced by $1 for every $10 that the payroll exceeds $1m and the full rate is payable at $1.1m.

State Land Tax

A tax on the freehold lands in New South Wales, and on lands held from the Crown on tenures such as conditional purchase, settlement purchase, or lease in perpetuity, has been imposed by the State since 1956.

Subject to some exemptions and deductions, the tax is imposed at graduated rates on the aggregate *Adjusted Values* (land value adjusted by an equalisation factor updated each year by the Valuer General) of all lands held by a person, company, etc. on 31 December each year. Examples of land which is exempt from the tax include:

- *(a)* land used and occupied by the owner (not a company) as the owner's principal place of residence (and for no other purpose), where the area does not exceed 2,100 square metres (or 2 hectares, where subdivision is precluded by an environmental planning instrument within the meaning of the Environmental Planning and Assessment Act, 1979) — partial exemption applies to land exceeding these dimensions; and
- *(b)* land used primary for primary production, except when owned by, or jointly with, a company which is not subject to exemptions provided under the Land Tax Management Act, 1956.

Owners of land liable for the tax are those (whether sole or joint owners) who, at midnight on 31 December, 1986, owned in New South Wales:

- *(a)* one or more parcels of land, including a residential lot in a Strata Plan, *Adjusted Value* of which the total is $94,000 or more;
- *(b)* a non residential lot in a Strata Plan where the *adjusted value* of the land on which the building is erected is $94,000 or more;
- *(c)* for a *related company* (as defined), land of a total *adjusted value* which, when aggregated with that of land owned by a related company or companies, is $94,000 or more;
- *(d)* land subject to a special trust, e.g. a discretionary trust where the total land value is $5,000 or more.

The 1987 rates of land tax levied are summarised in the following table.

Rates of Land Tax, New South Wales

Where the taxable value as assessed	*Rates of Land Tax Payable*
Is $94,000	$100 (tax not payable for land under $94,000)
Exceeds — $94,000	$100 plus 2.0¢ for each $1 in excess of $94,000
except in respect of land — owned by a company classified under the Act as a non-concessional company; or — which is subject to a special trust	2.0¢ for each $1 of the taxable value

State Death Duties

No death duty is payable on the estate of any person who dies on or after 31 December 1981.

State Lotteries

Various state lotteries have been conducted in New South Wales since 1931, in terms of the State Lotteries Act, 1930.

With the exception of the "Instant" lottery the ceiling of the number of tickets is restricted to 100,000 for the "Jackpot" lottery and 200,000 for each of the other lotteries. The price of a ticket ranges from $2 to $10 and the first prize ranges from $60,000 to $1.0m.

In November 1982, the "Instant" lottery was introduced. Tickets sell at $1 each and any concealed prizes on the tickets may be claimed instantly. Occasionally a draw prize is also featured according to game themes.

Proceeds from the sale of tickets, after deducting prize-money, are transferred to the Consolidated Fund.

State Stamp Duties

Stamp Duty is imposed on numerous legal and commercial documents and transactions. A separate duty is prescribed for each category, although there are certain exemptions and exceptions specified in the Stamp Duties Act, 1920.

Examples of the 1987 rates of duty payable are shown in the next table.

Document or transaction	*Duty payable*
Cheque	10c
Hiring arrangements	1.5 per cent (but not exceeding $10,000) on total amount payable under each hiring arrangement.
Lease of realty	$10 fixed duty under Section 5A of Landlord and Tenant Act. Otherwise 35c per $100 or part, of total rental.
Loan security, etc., exceeding $500	$5 for the first $15,000 or part thereof plus 40c for every $100 or part of $100 over $15,000.
Motor vehicle certificate of registration —	
On transfer of ownership of new or second-hand vehicle	$2 for every $100 or part of $100 of the value of the motor vehicle.
Policy of insurance (for one year or less) and renewal of policy	7c for every $100 or part of $100 insured (maximum duty is 25 per cent of premium).
Receipts of financial institutions and certain other persons	3c per $100 of the total amount received with a maximum of $300 on any single receipt.
Transfer of property (other than shares, motor vehicles and mortgages) on consideration or value whichever is the greater —	
(*a*) up to $14,000	$1.25 for each $100 or part of $100
(*b*) more than $14,000 and up to $30,000	$175 plus $1.50 for each $100 or part of $100 over $14,000.
(*c*) more than $30,000 and up to $80,000	$415 plus $1.75 for every $100 or part of $100 over $30,000
(*d*) more than $80,000 and up to $300,000 *over $80,000*	$1,290 plus $3.50 for every $100 or part of $100
(*e*) more than $300,000 and up to $1,000,000 *over $300,000*	$8,990 plus $4.50 for every $100 or part of $100
(*f*) more than $1,000,000 $1,000,000	$40,490 plus $5.50 for every $100 or part of $100 over
Transfer of shares	6c per $10 or part thereof on consideration or value whichever is the greater.
Transfer of other shares by sale (effected by brokers) —	Buyer and seller, each:
(*a*) consideration less than $100	7c for every $25 or part of $25
(*b*) consideration $100 or more	30c for every $100 or part of $100

Lotto

The game of lotto was introduced in November 1979, in terms of the Lotto Act 1979. It is conducted jointly by the State Government Lotteries and private enterprise twice weekly.

In accordance with both the Act and licence, 60 per cent of subscriptions for each game is transferred to the Prize Fund while the private trading body receives an amount of 5 per cent which reduces to 4 per cent when annual subscriptions exceed $300m. The government's share comprises duty at 31 per cent of subscriptions plus a further allowance of 4 per cent towards operating costs. This allowance increases to 5 per cent when annual subscriptions exceed $300m. This further allowance as well as commission collected on sales made through lottery branches is applicable towards operational expenses. In 1985-86, subscriptions totalled $321.6m.

Poker Machine Taxes

The operation of poker machines in clubs is subject to the issue by the Licensing Court of New South Wales, of registration certificates in accordance with the Registered Club Act, 1976. Registered clubs operating poker machines are liable to pay various taxes on the machines, as determined under the Gaming and Betting (Poker Machines) Taxation Act, 1956.

The basic tax per machine is dependent on the number of machines kept in the club and the value of the coin used to play, e.g. a club pays $1,000 for the first two 20 cent coin machines increasing up to $2,500 for each 20 cent coin machine in excess of 20.

Concessions from the basic tax are granted in the light of a club's net takings (gross receipts less prizes awarded) from poker machines. Other concessions are allowed to new clubs with a small membership.

A supplementary tax is levied on a club's net revenue (gross receipts less prizes awarded, maintenance, depreciation allowance, and basic licence tax paid) derived from poker machines, if the net revenue exceeds $100,000 per annum. The rates at which the supplementary tax is levied are:

$100,001 to $120,000	90 cents in the dollar on the amount in excess of $100,000
$120,001 and over	15 per cent of the net revenue

An additional supplementary tax is payable if a club's net revenue from poker machines exceeds $100,000 per annum. The basic rate on net revenue from $100,001 to $200,000 is 1.5 per cent; on the next $300,000, 3 per cent; on the next $250,000, 6 per cent, and on the amount in excess of $750,000, 7 per cent.

State Taxes on Racing, Rugby League Matches and Other Events

Taxes are imposed on betting in respect of horse and greyhound racing, trotting contests and (since February 1983) on rugby league matches and certain prescribed contests. These taxes include taxes on bookmakers, on totalisator investments, and on dividend returns.

Taxes on Bookmakers

Taxes payable by bookmakers direct to the State Government comprise a registration tax, stamp duty on bets made, and a tax on the total amount of bets.

The registration tax is payable in respect of the licences entitling bookmakers to operate on various racecourses or groups of racecourses.

Stamp duty is payable on betting tickets issued by bookmakers; it is also payable on the number of credit bets made.

A tax on bookmakers' turnover is charged as a percentage levy on the total amount of bets made by backers. The rate was 1.25 per cent for 1986-87.

Totalisator Tax

A tax is levied as a specific percentage of all totalisator investments. Racing clubs (in respect of on-course investments) and the Totalizator Agency Board (in respect of investments off-course and events other than racecourse meetings including rugby league matches) also retain a proportion of total investments as commission. In addition, since January 1983, dividends are calculated in five cent steps and any balance is rounded down. The resulting gain is payable to the Consolidated Fund.

State Motor Tax

Taxes and fees are levied by the State on motor vehicles. Fees and charges are imposed in respect of motor transport services and the registration and licensing of vehicles and drivers. Details as to the rates of taxes, fees, and charges, are shown in the subdivision "Motor Taxes, Fees, and Charges" in Chapter 14, "Transport and Communication".

Petroleum Products Franchise Licences

The Business Franchise Licences (Petroleum Products) Act, 1982 required all distributors of diesel fuel and motor spirit (for road vehicles) to be licensed from 1 September 1982. The licence fee consists of a small fixed charge plus, in the case of these petroleum products being purchased from an unlicensed wholesaler, an additional fee calculated by the volume of sales or 8.4 per cent of the value of motor spirit sales and 14 per cent of the value of diesel sales. This additional fee, however, is not payable for any petroleum products sold for delivery and consumption outside the State. Tax relief has been granted in advance to areas of New South Wales affected by Queensland and the A.C.T. which do not impose franchise fees, or by Victoria which has imposed lower rates in the past.

Tobacco Franchise Licences

The Business Franchise Licences (Tobacco) Act, 1975, requires licensing of wholesale tobacco merchants and retail tobacconists and from 28 August 1984, vending machine operators.

COMMONWEALTH PAYMENTS TO THE STATES

Commonwealth payments to New South Wales take three main forms:

General purpose revenue payments: in 1986-87 these comprise:

- the *Financial Assistance Grant* which is an unconditional payment to the State;
- the *Health Grant* which is the Commonwealth's identified contribution towards State health expenditures; and
- *special revenue assistance* in recognition of extra costs accruing to the State following the termination of the Isolated Patients' Travel and Accommodation Assistance Scheme.

Special purpose payments: these are conditional payments which are to be used for either specific recurrent or specific capital purposes. They may be either grants (i.e. non-repayable) or advances (i.e. repayable). In addition, advances may be at market related interest rates, at concessional rates, or interest-free.

Payments made in the light of decisions by the Australian Loan Council: these consist of a borrowings component and a general purpose capital grant component.

GENERAL PURPOSE REVENUE GRANTS

State's Financial Assistance Grants from 1985-1986

New arrangements for determining the level and distribution of general revenue grants to the States and the Northern Territory commenced in 1985-86. In lieu of the tax sharing arrangements which had operated in various forms since 1976-77 the arrangements adopted at the 1985 Premiers' Conference provided for financial assistance grants to be escalated each year to yield a specified and pre-determined real rate of growth.

In 1985-86, financial assistance grants were held to the same real level as in 1984-85 by increasing the total amount of tax sharing grants paid to the States in 1984-85 by the increase in the All Groups Consumer Price Index for the six State capitals in the year ending in the March quarter of 1986 and over the preceding year. These grants have been, and will continue to be, distributed in accordance with the adjusted, preferred relativities calculated by the Commonwealth Grants Commission.

Identified Health Grants

Separately identified health grants from 1985-1986 onwards will be allotted according to the per capita relativities of those for 1984-85. New South Wales received $563.0m in 1985-86 ($521.4m in 1984-85). The introduction of the identified health grants was conditional upon the States providing free public hospital services to eligible pensioners, persons in special need and their dependants.

Other General Revenue Grants

Special revenue assistance grants were paid to all states in 1986-87 in accordance with the States Grants (General Revenue) Act 1985. Prior to this, New South Wales last received a special revenue assistance grant in 1983-84 to overcome unusual budgetary difficulties experienced in that year.

General revenue grants to the states in recent years are listed in the following table.

General Purpose Revenue Grants to States *(a)*

Year	*New South Wales*	*Victoria*	*Queensland*	*Western Australia*	*South Australia*	*Tasmania*	*Total*
			Amount ($'000)				
1981-82	2,512,311	1,828,408	1,483,342	964,948	769,633	326,778	7,885,419
1982-83	2,830,771	2,063,421	1,600,718	1,053,169	884,064	367,999	8,800,143
1983-84	3,113,026	2,312,287	1,815,825	1,049,639	1,168,140	431,478	9,890,395
1984-85	3,214,557	2,395,145	1,990,296	1,224,633	1,182,606	476,117	10,483,355
1985-86	3,575,615	2,619,369	2,097,093	1,299,268	1,267,262	493,567	11,352,173
1986-87(estimate)	3,945,580	2,884,590	2,317,897	1,447,007	1,373,282	515,514	12,483,870
			Amount per head of mean resident population (dollars)				
1981-82	476.72	460.59	622.13	731.46	581.38	762.61	536.59
1982-83	530.58	513.88	653.89	779.32	662.32	854.02	589.99
1983-84	578.09	569.85	729.33	763.60	849.80	992.36	655.44
1984-85	590.44	584.15	787.43	877.81	870.59	1,083.07	686.75
1985-86	649.06	632.25	816.28	912.98	926.63	1,110.64	734.49

(a) Excludes grants to local government authorities (see later in this chapter).

GENERAL PURPOSE CAPITAL GRANTS

Since 1970-71, the Commonwealth Government has made interest-free capital grants to the States. The grants are primarily designed to help the States finance capital works from which debt charges are not normally recovered (such as schools and police buildings) and they replace borrowings that would otherwise have been made through the State governments' Loan Council programs. The grants are not, however, subject to conditions as to the purposes for which they might be expended. The amounts paid to New South Wales in recent years are shown below.

General Purpose Capital Grants to New South Wales ($'000)

1981-82	*1982-83*	*1983-84*	*1984-85*	*1985-86*	*1986-87p*
140,854	147,938	158,282	168,572	180,371	138,809

COMMONWEALTH PAYMENTS FOR SPECIFIC PURPOSES

The Commonwealth Government provides payments to all States for specific current and capital purposes. The conditions attached to the specific purpose payments may give the States some discretionary control as to the way in which they are spent (e.g. grants for government schools) or they may simply involve the State as a "paying agent" (e.g. recurrent grant for non-government schools, Universities and Colleges of Advanced Education).

The purpose specified may be of a capital or a recurrent nature and the payment to the State may be either a grant (i.e. non-repayable) or an advance (i.e. repayable). Where payments are on a "matching" basis with expenditure from the State's own resources, they are generally subject to a limitation in terms of the amount provided by the Commonwealth.

Commonwealth Grants to New South Wales Government For Specific Purposes ($'000)

Purpose	*r1980-81*	*r1981-82*	*r1982-83*	*r1983-84*	*1984-85*	*1985-86*
For current purposes						
General public services *(a)*	252	299	411	491	1,233	1,134
Education	702,068	805,138	915,395	995,306	1,077,134	1,174,861
Health	499,931	*(b)*5,367	18,500	*(c)*109,665	359,618	433,229
Social security and welfare	14,549	10,331	18,135	25,690	34,104	44,652
Housing and community amenities	1,848	1,848	1,848	1,848	1,848	1,880
Economic services *(d)*	16,379	13,070	53,325	143,526	150,442	115,218
Other purposes *(e)*	144,286	154,810	238,156	203,955	200,266	212,553
Total grants for current purposes	**1,379,309**	**990,864**	**1,245,769**	**1,480,483**	**1,824,644**	**1,983,524**
For capital purposes						
General public services	—	—	—	—	—	—
Education	108,241	124,107	150,168	149,076	163,776	169,721
Health	1,019	299	234	206	519	17,087
Social security and welfare	1,798	2,045	5,118	4,102	10,031	5,836
Housing and community amenities	40,822	38,023	62,580	115,109	193,004	207,426
Recreation and related cultural services	330	523	2,602	5,288	9,547	9,143
Economic services *(c)*	219,945	219,025	284,819	426,822	412,999	412,943
Other purposes	815	145	—	7,412	—	418
Total grants for capital purposes	**372,970**	**384,166**	**505,520**	**708,016**	**789,874**	**822,575**
Total specific purpose grants	**1,752,279**	**1,375,029**	**1,751,289**	**2,188,499**	**2,614,518**	**2,806,099**

(a) Includes grants for Law, order and public safety. *(b)* Hospital cost-sharing agreement expired 30 June 1981. *(c)* Medicare compensation grants commenced 1 February 1984. *(d)* Primarily services to the rural industries and (for capital purposes) contributions towards the construction and maintenance of designated roads. *(e)* Includes grants distributed to local government authorities as general purpose assistance.

Repayable advances have been received by New South Wales from the Commonwealth Government under separate agreements for various specific purposes. Of the $77.2m advances received in 1984-85, $71.0m related to housing and community amenities. The total amount repayable by the State to the Commonwealth is included in the subdivision "Loan Indebtedness Outside the Financial Agreement" shown later in this chapter.

STATE GOVERNMENT FINANCE

The principal operating accounts prepared by the Treasurer in the public accounts of the State of New South Wales are as follows:

The Consolidated Fund. This is presented on a "cash" or "receipts and payments" basis. Receipts come mainly from Commonwealth payments which include allocations from total Commonwealth taxation and loan raisings by the Commonwealth. Other receipts come from the State's own taxes, land revenue, fees, fines, interest earnings and general miscellaneous income. Not all the State's receipts pass through this account as some legislation dictates that certain revenues be paid into other special funds. Expenditure is authorised by appropriations under particular statutes, by annual appropriations for both recurrent and capital works and services which lapse at each 30 June, and also by the Public Finance and Audit Act, 1983.

The Special Deposits Accounts are those for which the Treasurer is, by statutory or other authority, required to use instead of the Consolidated Fund.

The State government also operates many statutory corporations which provide an extensive range of goods and services to other governmental bodies, the general public, industry, and commerce.

Most enterprises aim at covering the bulk of their expenses by revenue from the sales of goods and services. Others engage in the provision of services at prices significantly below their cost as a matter of governmental policy.

Debt charges are no longer payable to the Treasurer in respect of the loan liability of the State Rail Authority and the Urban Transit Authority. However, each authority is to pay to the Treasurer such amounts out of its annual surplus as the Minister for Transport may determine. Provision also exists for certain capital repayments to be made to the Treasurer as may be prescribed by the Minister.

The State government enterprises dealt within this section include the central government, statutory bodies created by or under State legislation to carry out activities on behalf of the central government, and incorporated organisations in which the State government has a controlling interest.

The following tables relate to the general government and public trading enterprise operation of the State government. However, only a limited number of commodity marketing boards are covered in these statistics which present a summary of revenue, outlays and financing transaction, and final expenditures classified by Government Purpose Classification. The final table is a summary of the revenue and expenditure of selected state enterprises.

N.S.W. State Government Finance: Revenue and Grants Received and Financing Transactions
($ million)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86p*
Revenue and grants received	**7,251.4**	**7,944.9**	**9,466.8**	**10,690.2**	**11,869.8**	**13,129.0**
Taxes, fees and fines	2,500.1	2,878.5	3,332.4	3,701.9	4,062.0	4,586.8
Net operation surpluses of public trading enterprises	492.1	492.3	851.7	830.9	1,053.7	1,035.9
Property income	386.2	395.2	402.8	561.9	636.2	814.2
Income from public financial enterprises	*36.6*	*65.4*	*18.7*	*51.8*	*76.2*	*97.7*
Interest received	*200.8*	*203.3*	*238.5*	*350.5*	*393.4*	*531.0*
Other property income	*148.8*	*126.5*	*145.6*	*159.6*	*166.6*	*185.4*
Other revenue	69.7	83.1	83.1	93.9	59.1	102.9
Grants received	3,803.3	4,095.8	4,796.8	5,501.6	6,058.8	6,589.1
Current grants	*3,290.1*	*3,556.4*	*4,151.5*	*4,663.4*	*5,106.6*	*5,590.6*
Capital grants	*513.3*	*539.4*	*645.3*	*838.2*	*952.3*	*998.5*
Financing transactions	**1,489.3**	**2,267.2**	**1,833.9**	**1,938.6**	**1,934.2**	**2,154.0**
Advances received	280.0	279.0	285.7	296.2	254.1	230.4
Net borrowing:	*794.4*	*1,836.7*	*1,205.0*	*1,762.0*	*1,165.6*	*1,827.1*
General government	*99.2*	*102.7*	*75.9*	*157.4*	*447.6*	*566.1*
Public trading enterprises	*695.2*	*1,734.0*	*1,129.1*	*1,604.6*	*718.0*	*1,261.0*
Deposits received (net)	8.8	–45.3	0.7	18.2	–55.9	243.7
Increase in cash balance of private trust funds	*8.8*	*–45.3*	*0.7*	*18.2*	*–55.9*	*243.7*
Decrease in investments	15.2	15.1	–46.9	–172.2	–38.0	–139.0
Decrease in currency and deposits	119.8	–35.5	–248.2	–316.0	–286.0	–685.0
Increase in provisions	236.4	372.1	426.5	591.3	591.6	580.0
Increase in provisions for depreciation	*207.3*	*244.6*	*313.0*	*403.3*	*397.4*	*452.9*
Other	*29.1*	*127.5*	*113.5*	*188.0*	*194.1*	*127.1*
Other funds available (net) including errors and omissions	34.5	–154.7	211.1	–240.9	303.0	96.8
Total revenue and grants received and financing transactions	**8,740.7**	**10,212.1**	**11,300.7**	**12,628.8**	**13,804.0**	**15,283.0**

N.S.W. State Government Finance: Government Outlays ($ million)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86p*
Current outlays	**6,401.8**	**7,448.4**	**8,486.9**	**9,440.7**	**10,493.9**	**11,502.8**
General government final consumption expenditure	4,447.0	5,073.5	5,471.6	6,015.6	6,750.4	7,336.2
Requited current transfer payments	820.9	997.3	1,316.4	1,510.0	1,684.7	1,964.1
Interest payments:	*820.9*	*997.3*	*1,316.4*	*1,510.0*	*1,684.7*	*1,964.1*
To Commonwealth on advances	*501.8*	*559.2*	*632.9*	*696.6*	*721.7*	*756.9*
To other	*319.1*	*438.1*	*683.5*	*813.5*	*963.0*	*1,207.3*
Land rent, royalties, dividends paid	—	—	—	—	—	—
Unrequited current transfer payments	1,134.0	1,377.6	1,699.0	1,915.1	2,058.8	2,202.5
Subsidies paid:	*479.0*	*633.6*	*818.7*	*813.2*	*840.3*	*916.6*
To public trading enterprises	*445.6*	*600.4*	*731.2*	*748.1*	*796.9*	*862.4*
To other enterprises	*33.3*	*33.2*	*87.5*	*65.1*	*43.4*	*54.2*
Personal benefit payments	*244.6*	*269.4*	*303.3*	*323.5*	*361.6*	*366.6*
Current grants	*410.4*	*474.6*	*577.0*	*778.4*	*857.0*	*919.3*
Grants to non-profit institutions	*261.8*	*309.8*	*383.9*	*527.7*	*575.7*	*618.2*
Grants to local authorities	*148.6*	*164.7*	*192.9*	*250.7*	*281.2*	*301.1*
Commonwealth grants for onpassing	*117.3*	*136.0*	*163.3*	*179.5*	*188.3*	*207.5*
Other	*31.3*	*28.6*	*29.7*	*71.2*	*93.0*	*93.1*
Other current transfer payments	—	—	—	—	—	—
Capital outlays	**2,338.9**	**2,763.7**	**2,813.8**	**3,188.1**	**3,310.1**	**3,780.1**
Gross fixed capital expenditure	2,120.9	2,503.1	2,574.8	2,995.1	3,138.5	3,577.6
Expenditure on new fixed assets	*2,132.0*	*2,471.3*	*2,586.9*	*2,995.2*	*3,129.5*	*3,597.8*
Expenditure on secondhand fixed assets (net)	*–11.0*	*31.8*	*–12.2*	*–0.1*	*9.0*	*–20.2*
Increase in stocks	74.0	114.6	87.7	–5.7	–14.5	4.5
Expenditure on land and intangible assets (net)	–7.9	21.1	–17.0	7.8	–0.4	32.9
Capital transfer payments	103.9	117.9	127.7	161.8	133.8	134.8
Grants to the private sector and public financial enterprises	*24.0*	*31.7*	*33.4*	*26.8*	*33.8*	*46.2*
Grants to local authorities	*80.0*	*36.2*	*94.2*	*135.0*	*100.0*	*88.5*
Commonwealth grants for onpassing	*34.8*	*37.5*	*41.4*	*62.8*	*57.9*	*62.4*
Other	*45.2*	*48.7*	*52.8*	*72.1*	*42.1*	*26.1*
Other capital transfer payments	—	—	—	—	—	—
Advances paid (net)	*48.0*	*7.0*	*40.5*	*29.2*	*52.8*	*30.3*
To public financial enterprises	*54.2*	*11.0*	*33.0*	*32.0*	*43.0*	*39.2*
To the private sector	*–10.6*	*–9.8*	*3.2*	*–4.9*	*–5.5*	*–11.2*
To local authorities	*4.5*	*5.8*	*4.4*	*2.1*	*15.3*	*2.3*
Total outlays	**8,740.7**	**10,212.1**	**11,300.7**	**12,628.8**	**13,804.0**	**15,282.9**

N.S.W. State Government Finance: General Government Final Consumption Expenditure ($ million)

Classification	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86p*
General public services	305.6	353.7	395.6	403.1	446.4	594.1
Defence	0.4	0.4	0.1	0.1	0.1	—
Public order and safety	499.1	579.0	623.2	687.6	769.8	827.0
Education	1,837.6	2,142.6	2,361.2	2,534.4	2,729.5	2,833.6
Primary and secondary education	*1,213.6*	*1,412.2*	*1,488.9*	*1,584.4*	*1,704.0*	*1,703.4*
Tertiary education	*606.8*	*701.4*	*780.0*	*843.2*	*927.5*	*1,013.4*
Other	*17.2*	*29.0*	*92.3*	*106.7*	*98.1*	*116.8*
Health	1,269.8	1,427.6	1,423.8	1,682.9	1,993.6	2,207.1
Hospital and other institutional services and benefits	*1,143.3*	*1,287.4*	*1,268.2*	*1,503.7*	*1,801.0*	*2,061.3*
Clinics and other non-institutional services and benefits	*69.6*	*77.7*	*102.8*	*118.7*	*129.2*	*142.0*
Other	*56.9*	*62.6*	*52.8*	*60.5*	*63.4*	*3.8*
Social security and welfare	56.3	62.5	70.6	91.1	114.1	118.2
Housing and community amenities	20.8	19.5	27.7	7.4	31.1	60.1
Housing and community development	*13.6*	*11.9*	*19.0*	*–1.5*	*20.5*	*23.2*
Water supply	*.0*	—	—	—	—	—
Sanitation and protection of the environment	*7.2*	*7.6*	*8.7*	*8.8*	*10.6*	*36.8*
Other community amenities	—	—	—	—	—	—
Recreation and culture	43.9	55.1	60.9	69.2	90.6	102.6
Fuel and energy	9.6	13.4	13.7	12.7	15.2	21.7
Fuel affairs and services	*4.4*	*5.9*	*4.8*	*4.2*	*6.1*	*10.2*
Electricity and other energy	*5.2*	*7.5*	*8.9*	*8.5*	*9.1*	*3.2*
Fuel and energy n.e.c.	—	—	—	—	—	*8.2*
Agriculture, forestry, fishing and hunting	127.9	141.7	161.3	170.2	189.1	163.8
Mining, manufacturing and construction	20.4	5.8	19.4	17.1	17.8	14.7
Transport and communications	175.3	190.0	208.7	241.5	260.3	286.5
Road transport	*169.3*	*182.4*	*204.8*	*236.8*	*256.0*	*280.8*
Water transport	*3.7*	*4.8*	*1.9*	*1.9*	*1.5*	*0.7*
Rail transport	—	—	—	—	—	—
Other	*2.4*	*2.8*	*2.0*	*2.8*	*2.7*	*5.0*
Other economic affairs	59.1	70.0	84.5	85.7	95.3	94.2
Other purposes	21.1	12.2	20.8	12.7	–2.6	12.9
Total	**4,447.0**	**5,073.5**	**5,471.6**	**6,015.6**	**6,750.4**	**7,336.2**

N.S.W. State Government Finance: Expenditure on New Fixed Assets ($ million)

Classification	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86p*
General public services	34.5	27.3	31.5	34.2	37.5	43.7
Defence	—	—	—	—	—	—
Public order and safety	42.7	44.3	48.7	60.7	71.9	115.3
Education	220.3	224.2	194.1	227.4	260.9	280.9
Primary and secondary education	*144.0*	*142.1*	*95.7*	*131.7*	*140.5*	*144.9*
Tertiary education	*76.3*	*82.1*	*98.4*	*94.9*	*120.4*	*136.0*
Other	—	—	—	*0.8*	—	—
Health	64.1	49.5	48.9	52.4	85.7	114.3
Hospital and other institutional services and benefits	*55.8*	*43.3*	*41.3*	*44.8*	*74.4*	*100.9*
Clinics and other non-institutional services and benefits	*8.0*	*6.0*	*7.4*	*7.3*	*11.1*	*13.0*
Other	*0.3*	*0.2*	*0.2*	*0.2*	*0.3*	*0.3*
Social security and welfare	5.2	5.7	6.0	8.0	21.5	19.7
Housing and community amenities	419.0	454.5	411.9	601.0	725.7	873.2
Housing and community development	*198.7*	*168.8*	*154.7*	*278.2*	*326.3*	*371.4*
Water supply	*71.1*	*93.3*	*93.4*	*116.7*	*150.5*	*169.1*
Sanitation and protection of the environment	*149.2*	*192.4*	*163.8*	*206.1*	*248.9*	*332.6*
Other community amenities	—	—	—	—	—	—
Recreation and culture	21.6	19.3	14.3	35.6	67.6	129.5
Fuel and energy	*557.9*	*793.3*	*1,038.9*	*913.4*	*692.9*	*700.4*
Fuel affairs and services	*40.9*	*38.8*	*74.8*	*63.9*	*57.3*	*118.4*
Electricity and other energy	*517.0*	*754.5*	*964.1*	*849.5*	*635.6*	*582.0*
Fuel and energy n.e.c.	—	—	—	—	—	—
Agriculture, forestry, fishing and hunting	73.4	83.8	84.2	82.5	95.9	101.4
Mining, manufacturing and construction	5.9	2.0	1.2	3.3	6.1	4.6
Transport and communications	673.6	747.0	690.1	963.2	1,049.7	1,198.6
Road transport	*313.6*	*303.8*	*345.9*	*519.0*	*577.3*	*591.4*
Water transport	*113.6*	*117.9*	*71.3*	*52.5*	*38.7*	*79.2*
Rail transport	*246.4*	*325.3*	*273.0*	*391.7*	*433.7*	*528.0*
Other	—	—	—	—	—	—
Other economic affairs	13.7	20.4	17.1	13.4	14.1	15.3
Other purposes	—	—	—	—	—	1.0
Total	**2,132.0**	**2,471.3**	**2,586.9**	**2,995.2**	**3,129.5**	**3,597.8**
of which:						
General government	782.7	762.8	777.6	1,034.4	1,271.3	1,470.2
Public trading enterprises	1,349.3	1,708.5	1,809.4	1,960.8	1,858.2	2,127.6

Selected State Enterprises, N.S.W.: Revenue and Expenditure ($'000)

	1984-85			*1985-86*		
Enterprise	*Revenue*	*Expend-iture*	*Surplus or deficit (−)*	*Revenue*	*Expend-iture*	*Surplus or deficit (−)*
N.S.W. Dairy Corporation	220,609	221,782	(−)1,173	231,371	230,954	417
Electricity Commission of N.S.W.	1,858,733	1,850,946	(−)7,787	2,026,119	2,029,260	(−)3,141
Grain Handling Authority of N.S.W. *(a)*	148,253	117,951	30,302	133,737	130,905	2,832
Department of Housing *(b)*	277,030	263,007	14,023	299,567	305,120	(−)5,553
Maritime Services Board of N.S.W.	265,160	250,797	14,363	280,535	266,276	14,259
State Rail Authority *(c)*	1,534,042	1,534,042	—	1,719,264	1,719,264	—
Totalizator Agency Board	120,920	73,105	47,815	145,328	80,662	64,666
Urban Transit Authority *(d)*	238,537	238,412	125	257,677	257,552	125

(a) The Authority accounting year was changed in 1984-85 to end 30 September so as to be on the same financial year as the Australian Wheat Board. *(b)* On 1 January 1986 the Housing Commission of N.S.W. was amalgamated with the Land Commission of N.S.W. to form the Department of Housing. Figures for both years represent their combined full year operations, after allowing for rebates of rents of $109m in 1984-85 and $129m in 1985-86. *(c)* Includes revenue supplements and reimbursement of debt charges from Consolidated Fund. *(d)* Includes revenue supplements from Consolidated Fund.

LOAN FUNDS OF NEW SOUTH WALES

The public borrowings of the Commonwealth and State Governments are co-ordinated by the Australian Loan Council in terms of the *Financial Agreement of 1927* and as revised. This jointly legislated agreement provided for the establishment of the Australian Loan Council (comprising the Prime Minister and the six Premiers or their nominees), giving it the responsibility for determining the total amount to be borrowed by the Commonwealth and the States, its distribution amongst the seven governments and the terms and conditions on which borrowings are made.

Under the Financial Agreement, State Governments cannot borrow without the approval of the Loan Council (except in a limited number of special cases), and with a few exceptions, the State allocations approved by the Loan Council are financed by Commonwealth loan raisings. If loan raisings are insufficient to meet the agreed borrowing program, it has been the practice for the Commonwealth to make up the difference by subscribing, from its own resources, to a special loan.

It has also been the practice for many years for the Loan Council to formulate a "package deal" generally covering borrowings on behalf of State Governments and direct borrowings by semi-government and local government authorities (see below). The Commonwealth guarantee to make up any shortfall in public loan raisings to meet the State Governments' borrowings depends on the adherence to this package.

In respect of Loan Council approved borrowing programs, the May 1985 Loan Council Meeting decided that the *Global Approach*, adopted on a trial basis for 1984-85, would formally replace the *Gentlemen's Agreement* as the framework for Loan Council oversight of authority borrowings. Under the *Global Approach* arrangements, the Commonwealth and the States agreed to voluntarily limit the level of new money borrowings by their government and local authorities, government owned companies and trusts to global limits agreed by Loan Council. Bodies subject to global limits are able to refinance debt outside new money borrowing limits, provided there is no net addition to the total level of outstanding debt.

Included in the definition of new money borrowings are "conventional" loan raisings, deferred payments, overseas trade credits, financial leases, sale and lease back arrangements, the net change in temporary purpose borrowings and any other form of raising new capital funds. Each State and the Commonwealth is free to determine the distribution of the total among its individual authorities. The agreed global limits of new money borrowings exclude borrowings by government-owned financial institutions (except where on-lent to non-exempt authorities) and borrowings by statutory marketing authorities (except borrowings for the purpose of financing capital expenditure)

The Changing Nature of Financing Capital Works Programs

In recent years, the principal government trading enterprises have relied less on advances from the Consolidated Fund — capital works and services account to fund their large-scale works programs. They have raised their own loans under government guarantee (see "Loans Guaranteed by the State" shown later in this division). In June 1983, the New South Wales Treasury Corporation was established to arrange finance for government corporations and electricity Councils (see below).

In addition, a form of capital acquisition of plant and equipment, in lieu of outright purchase with loan funds, has been utilised by some public bodies. *Leveraged leasing* agreements, signed for the supply of plant and equipment, provided for the payment of lease-rentals designed to recover a very high percentage of the costs plus interest over a period of a predetermined number of years. Under such contracts, the authorities can have a renewal option for a further similar term at a rental to be agreed with the lessors, under certain conditions.

Under a power supply agreement, the Electricity Commission undertook the construction of the Eraring Power Station. Progressive sales of the assets of the power station to a partnership of companies were negotiated in December 1981 in order to make contributions to the capital expenditure programme of the Commission. The Partnership's purchase was funded mainly through a Euro currency loan and equity funds with the balance provided by other loans or treated by the Commission as deferred obligation.

The provision of credit facilities for the supply of major plant and equipment has been employed. For some intermediate term projects generating a cash inflow fairly quickly, short term bridging finance has been used to replace longer term borrowings.

Borrowing by the New South Wales Treasury Corporation

In June 1983, the New South Wales Treasury Corporation was established as the State's central borrowing authority. The Corporation provides financial accommodation for semi-government authorities and electricity county councils. The borrowings are government guaranteed.

The Corporation has investment powers, manages existing borrowings of authorities and, if necessary, can restructure their debts. It has also embarked on a program directed at replacing existing securities with those of the Corporation.

NATIONAL DEBT SINKING FUND

The National Debt Sinking Fund, originally established in terms of the National Debt Sinking Fund Act, 1923 (later replaced by the National Debt Sinking Fund Act, 1966) is controlled by the National Debt Commission. Under the terms of the Financial Agreement, 1927, the Commission also took control of sinking funds existing in respect of the States' debts. Subsequent Acts of the Commonwealth have resulted in the States' sinking funds being absorbed into the National Debt Sinking Fund, and separate accounts maintained for the Commonwealth and each State. Annual payments to the Fund on account of State debts are contributed partly by the Commonwealth Government and partly by the States. The contributions in respect of New South Wales debt commenced from 1 July 1928, one year after the commencing date of other States.

Significant operations of the National Debt Sinking Fund in regard to the debts of the State of New South Wales are summarised in the following table.

National Debt Sinking Fund: Transactions on Account of New South Wales ($'000)

Particulars	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Receipts —						
Contributions by —						
Commonwealth Government	13,152	13,766	14,392	15,010	15,680	16,258
New South Wales Government	55,436	58,072	60,750	63,401	66,271	68,749
Interest	87	93	67	78	86	1,054
Total receipts	**68,675**	**71,932**	**75,209**	**78,489**	**82,037**	**86,061**
Payments *(a)*						
Australia	44,396	66,003	74,608	77,765	79,814	78,793
Overseas	25,461	6,385	1,703	1,197	1,689	—
Total payments	**69,857**	**72,388**	**76,311**	**78,962**	**81,503**	**78,793**
Cash balance at 30 June	**2,151**	**1,696**	**594**	**121**	**655**	**7,923**

(a) Net cost (in Australian currency) of securities re-purchased and redeemed.

A proportion of the sinking fund contributions is allocated to various State enterprises that have been provided with capital from State loan funds. Sinking fund contributions chargeable to State enterprises are shown in the following table.

National Debt Sinking Fund: Recoupment from State Enterprises, N.S.W. ($'000)

Enterprise	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*	*1985-86*
Maritime Services Board	2,391	2,343	2,525	2,569	2,565	2,613
Electricity Commission of N.S.W.	6,072	6,005	6,487	6,081	6,016	6,132
Metropolitan Water Sewerage and Drainage Board	278	276	378	371	358	371
Hunter District Water Board	50	49	68	66	63	61
Sydney Harbour Bridge	112	109	128	128	127	128
Main Roads Department	1,489	1,597	1,741	1,769	1,761	1,790
Grain Handling Authority of N.S.W.	130	122	149	149	181	137
Other	898	933	1,169	1,200	1,208	1,295
Total recoupment from State enterprises	**11,420**	**11,434**	**12,645**	**12,333**	**12,279**	**12,527**

COMMONWEALTH DEBT ASSISTANCE

In terms of the *Financial Agreement of 1927,* the Commonwealth Government took over the debts of the States on 1 July 1929 and assumed, (as between the Commonwealth and States) the liabilities of the States to bond-holders. The Commonwealth agreed to pay, as agent for the States, the interest due on the public debt of the States, and, under the Agreement, had been contributing $15.2m ($5.8m to New South Wales) per annum towards that interest, for a period of 58 years from 1 July 1927, that is, until 30 June 1985. Since then the States have reimbursed the Commonwealth Government for the whole of the interest paid on their behalf.

Under the 1975 Supplemental Agreement, States' debts totalling over $1,000m as at 30 June 1975 were assumed by the Commonwealth Government. As a result the sinking fund provisions were varied in the following manner:

(a) Specified contributions were made by the States ($122m) and by the Commonwealth ($30m) in 1975-76.

(b) For the next nine years (ten in the case of New South Wales), the contributions amounted to the values referred to in *(a)* adjusted by a percentage of the difference between each State's net debt at 30 June 1975 and the net debt at 30 June immediately preceding the year of contribution. The percentage was 1.20 for State contributions and 0.28 for Commonwealth contributions.

(c) As from and including 1985-86 (1986-87 in the case of New South Wales) the contributions by each State will equal 0.85 per cent of its net debt at the preceding 30 June and the Commonwealth's contribution will be 0.28 per cent.

Debt of State Government Enterprises

The external long term debt of the State and its authorities has four main components. These are: the loan liability to the Commonwealth under the Financial Agreement, 1927; indebtedness to the Commonwealth outside the Financial Agreement; the outstanding debt of statutory authorities — which is largely measurable by the contingent liability under Government guarantees; and the deferred payments scheme.

Loan Liability to the Commonwealth under the Financial Agreement

The loan liability to the Commonwealth under the Financial Agreement at 30 June in recent years is shown below. The debt domiciled overseas is now minimal.

1981 ($'000)	*1982 ($'000)*	*1983 ($'000)*	*1984 ($'000)*	*1985 ($'000)*	*1986 ($'000)*
4,885,370	5,108,066	5,327,886	5,566,541	5,773,544	5,999,154

The average rate of interest for this liability has increased from 8.62 per cent in 1981 to 11.21 per cent in 1986.

LOAN INDEBTEDNESS TO THE COMMONWEALTH OUTSIDE THE FINANCIAL AGREEMENT

In addition to the debt which constitutes the loan liability to the Commonwealth under the *Financial Agreement of 1927*, the States are also obligated for financial assistance given by the Commonwealth as "repayable advances" for various projects controlled or administered by or on behalf of the States. The table below shows the New South Wales liability at 30 June 1986 which necessitates redemption payments to the Commonwealth.

	$'000
Housing *(a)*	1,711,478
Urban and regional development *(b)*	47,315
Backlog sewerage works	81,009
Rural reconstruction	28,005
Dairy adjustment *(c)*	918
Rural adjustment *(c)*	41,377
Softwood forests	25,072
Natural disasters	35,369
Railway mainline upgrading	19,000
Other non-current projects	12,190
Total repayable Commonwealth advances	**2,001,733**

(a) Includes war service land settlement. *(b)* Excludes capitalised interest. *(c)* Excludes Commonwealth loan assistance, the return of which is contingent upon repayments by farmers.

New South Wales loan liability to the Commonwealth outside the Financial Agreement of 1927 at 30 June in recent years is shown below.

1981 ($'000)	*1982 ($'000)*	*1983 ($'000)*	*1984 ($'000)*	*1985 ($'000)*	*1986 ($'000)*
1,805,546	1,860,725	1,928,464	1,979,960	1,962,629	2,001,733

Details of the Commonwealth-State Housing Agreement and that of earlier years are given in Chapter 15, "Housing and Construction". Some of the other more significant matters entailing Commonwealth assistance outside the *Financial Agreement of 1927* have been:

(a) Urban and regional development programs which relate to the partial financing of growth centres at Albury-Wodonga, Bathurst-Orange, Campbelltown-Camden-Appin-Holsworthy area, and loans to the former Land Commission of New South Wales (now part of the Department of Housing).

(b) The overtaking of arrears of sewerage works, mainly allocated to the Sydney and Newcastle sewerage authorities as well as certain country councils.

(c) The Rural Reconstruction Scheme covered financial assistance to farmers for debt reconstruction; farm build-up to increase properties to a more economically viable size; and limited aid to alleviate personal hardship for those leaving the industry.

(d) The Rural Adjustment Scheme incorporates assistance of the kinds previously available under the Rural Reconstruction Scheme, the Dairy Adjustment Programs and the Beef Industry Carry-on Loans Schemes, plus some additional measures.

LOANS GUARANTEED BY THE STATE

In addition to liability for its own loans, the State has guaranteed, in terms of various Acts, the loans and overdrafts of certain State enterprises and other corporate bodies and institutions, etc. engaged, as a rule, in the promotion of public welfare and development. The loans and overdrafts under State guarantee as at 30 June in the latest six years are summarised in the following table. The amounts shown do not indicate the net amount of the contingent liability of the State, because sinking funds for repayment have been accumulated in respect of some of the loans.

Loans Guaranteed by the State, N.S.W.
($ million)

	Guaranteed loans, etc. outstanding at 30 June					
Corporation or body	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Loans raised by —						
N.S.W. Treasury Corporation	—	—	—	1,372.3	2,914.6	5,526.5
Metropolitan Water Sewerage and Drainage Board	1,418.8	1,557.7	1,720.0	1,748.8	1,692.8	1,460.8
Electricity Commission of N.S.W.	975.0	1,236.2	1,729.2	1,729.0	1,589.3	1,658.4
State Rail Authority	243.9	329.8	417.2	732.1	900.2	575.0
Commissioner for Main Roads	295.2	384.3	449.1	517.9	403.4	342.6
Other authorities	805.8	978.7	1,082.6	1,223.3	1,117.8	1,699.5
Total loans raised	**3,738.7**	**4,486.7**	**5,398.1**	**7,323.4**	**8,618.1**	**11,262.8**
Overdraft and advances of —						
Co-operative building societies and other	168.2	154.4	164.8	138.6	162.6	177.3

DEFERRED PAYMENTS SCHEME

Since 1983-84 the Government has arranged financing of a portion of capital expenditure through a deferred payments scheme that enables contractor payments against completed "works certificates" to be met through the issue of bank accepted commercial bills. From September 1984 the scheme ceased for most statutory authorities, with the Treasury Corporation subsuming their debt within borrowing allocations.

For approved projects that remain within the commercial bill scheme, i.e., largely those that relate to Budget Sector authorities, the original proposal that finance provided be repaid in three annual instalments commencing one year after practical completion of each project has been extended with financing continuing through bill roll-overs.

At 30 June Treasury records showed the face value of outstanding bills as:

1984 *($'000)*	*1985* *($'000)*	*1986* *($'000)*
140,800	198,688	285,647

LOCAL GOVERNMENT FINANCE

The system of local government in New South Wales is described in Chapter 2 "Government".

Municipalities, Shires and County Councils, N.S.W.: Revenue, Outlay, and Long-Term Debt

		Current revenue		*Current Outlay from revenue*		*Long-term debt*	
Year	*Number of authorities at 31 December*	*Ordinary services (a)*	*Trading activities*	*Ordinary services (a)*	*Trading activities*	*Ordinary services*	*Trading activities*
		$'000	$'000	$'000	$'000	$'000	$'000
1980	242	1,145,398	1,276,934	836,015	1,274,360	769,660	1,017,282
1981	219	1,312,016	1,504,352	974,544	1,501,652	846,559	1,092,366
1982	218	1,513,962	2,052,546	1,096,507	1,993,276	919,669	1,194,544
1983	218	1,635,778	2,404,214	1,249,331	2,292,412	987,895	1,287,371
1984	217	1,908,663	2,544,069	1,399,724	2,462,917	1,030,487	1,367,842
1985 —							
Municipalities and shires	*175*	*2,137,106*	*290,723*	*1,520,761*	*271,100*	*1,047,184*	*680,211*
County councils	*42*	*5,494*	*2,480,520*	*4,814*	*2,396,357*	*4,358*	*714,398*
Total	217	2,140,914	2,771,244	1,523,888	2,667,457	1,051,542	1,394,609

(a) Contributions to county councils by constituent municipalities and shires are omitted from total New South Wales figures to avoid duplication.

FEDERAL AID AND BORROWING APPROVAL

During 1985-86, New South Wales received $195.615 million under the Local Government (Personal Income Tax Sharing) Act 1976. In 1986-87, under the Local Government (Financial Assistance) Act 1986, the State is expected to receive $211.754 million in financial aid for councils. Each State had to establish principles (before 1 July 1987) for the division of aid among councils, and carry these out by 1 July 1991. The principles are to be approved by the Commonwealth minister with respect to its objectives of horizontal fiscal equalisation. The principal objective is to give financial aid to those councils most disadvantaged with respect to their ability to raise revenue and provide services. Allocations are to be determined on a full equalisation basis, using standards not lower than some average standard. The intention is to have a greater uniformity among States in the ways money is divided.

The Australian Loan Council permits States to determine terms and conditions of council borrowings subject to a limiting total. Approved new borrowings by councils are $251.1 million in 1986-87 ($287m). Council loan raisings, other than those for county councils, are made under the Local Government Act and do not carry any governmental guarantee. The New South Wales Treasury Corporation is the sole lender to electricity county councils. New money lending for 1986-87 is sanctioned at $40 million ($45.4m). The Department of Energy monitors these councils. There are no distinct programs for direct Commonwealth aid to councils. They are qualified to participate in the receipt of Commonwealth grants along with other eligible parties. There are also other programs for which the State has a discretionary power for passing on money to councils.

The Commission is constituted under the Local Government Act 1919 to allocate federal money to councils (and the Lord Howe Island Board). Under new arrangements flowing out of the Local Government (Financial Assistance) Act 1986, the Commission will still continue to exercise considerable discretion as to the detailed assessment of each council's relative need for aid. However, the approved principles will still ensure each council receives at least the equivalent of an allocation based on thirty per cent of State's grant being shared among councils on a per capita basis.

FUNDS OF LOCAL GOVERNMENT AUTHORITIES

The provisions of the Local Government Act 1919 require councils (except Sydney County Council) to establish separate distinct funds, for various moneys received. The most important is the general fund. It may be applied to administration, health, roads, parks, and debt servicing throughout the area controlled by a council.

Some councils establish special, local funds (other than for water supply or sewerage services) to provide certain services of express benefit to part of their area for which additional rates can be levied. Services provided by the general, and these special and local funds are here defined as ordinary services.

The powers of the Sydney County Council are set out in the Electricity (Special Provisions) Act 1935.

VALUATION AND RATING OF PROPERTY IN LOCAL AREAS

The services provided by councils are financed mainly from rates levied on the valuation of ratable property situated within the areas serviced by them.

Valuation of Property

The Valuer-General, appointed in terms of the Valuation of Land Act 1916, is empowered to make valuations of property for rating and taxing purposes in all local government areas within the State. It is now mandatory for statutory authorities to use *land value* for rating purposes. The Valuer-General continues to provide the assessed annual value of land for use by Water Boards in rating non-residential properties. Revaluations of all districts are required to be furnished a new valuation list at least once in every six years.

Land value is the value excluding all buildings and man-made structural improvements, but including improvements such as clearing, timber treatment, underground drains, and improvements to soil fertility and structure. In determining land value the surrounding development and available services are taken into account and the assumption is made that the land is held in *fee simple* with vacant possession. The *assessed annual value* is nine-tenths of the fair average rental of the land with improvements (if any) thereon, but must be not less than $10.

Rating by Municipalities and Shires

The Local Government Act allows municipal and shire councils to charge rates of five kinds, based on land valuation; general, differential general, special, local and loan rates. General rates are assessed on all ratable land within a council area.

Appeals by ratepayers, against classification of land for rating purposes, are heard in the Land and Environment Court. Ratepayers may apply to councils for postponement of part of their rates where they occupy a parcel of rural land in an area zoned otherwise or a single dwelling house on land zoned for commercial or industrial purposes or for high-density housing.

Provisions in the Local Government Act set conditions for rate-setting, with a control over the total revenue raised. Since 1984, special overriding legislation has regulated increases in individual rate assessments as well as garbage charges. For 1987, the increase allowed by the government was seven per cent. Councils may apply to the minister for approval to vary their rating structures or increase individual rates beyond the statutory limit or both.

Qualified pensioners are entitled to have their rates reduced by one-half up to a maximum (in 1987) of $150 for general rates and $75 each for water and sewerage rates. The state government subsidises councils in various ways:

- *(a)* Reimbursement of rebates up to the specified maxima.
- *(b)* Where councils have larger numbers of pensioner ratepayers, and the total mandatory rebate exceeds six per cent of general rate revenue, councils are recouped by the government for the full amount of the excess.
- *(c)* Where a voluntary pensioner rebate scheme existed before 1983, and those rebate conditions are unchanged, the government pays half the cost of such a scheme.

Rates are payable one month after service of rate notices. Interest (at the rate of 17.75 per cent per annum in 1987) may be charged on overdue rates. Ratepayers are allowed to arrange payment by instalments, and provided the last instalment is paid within seven months after the rate notice had been served, no extra charges will be made. The next table shows a rating analysis for the last six years.

Municipalities and Shires, N.S.W.: Ordinary Services, Rating Analysis *(a)* ($'000)

Particular	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
Rate arrears at beginning of year	45,831	43,246	42,944	47,671	50,473	52,050
Rates accrued during year —						
Gross rates levied	566,282	636,460	738,442	819,881	890,135	971,286
Less reduction in pensioner rates	39,780	41,565	47,295	50,865	55,812	61,459
Add government subsidies *(b)*	22,667	27,821	30,840	24,241	25,800	27,325
Penalties charged on overdue rates	6,072	6,085	6,927	8,084	8,351	9,015
Total rates accrued	**555,241**	**628,800**	**728,914**	**801,340**	**868,474**	**946,167**
Total rates receivable	601,072	672,046	771,858	849,011	918,947	998,217
Cash collections of rates	557,856	629,029	724,187	798,538	866,897	942,173
Rate arrears at end of year	**43,217**	**43,017**	**47,671**	**50,473**	**52,050**	**56,044**

(a) Rate arrears at end of year may not agree with rate arrears at beginning of following year because of end of year adjustments, such as amounts written off. *(b)* Relates to recoupments of pensioner rates reductions.

BORROWING POWERS OF LOCAL GOVERNMENT AUTHORITIES

Total council borrowings are subject to supervision by the Australian Loan Council. The Department of Local Government decides how that total is to be shared among councils with general purpose functions.

Under the Local Government Act, loans may be raised by limited bank overdraft, renewal or ordinary loans. The Act prescribes the process whereby the latter two are dealt with. Where the purpose for a loan becomes inexpedient or a residue occurs, the minister may approve spending on some other purpose. Renewal loans are raised for the repayment of existing loans and also to cover incidental expenses of doing so. Limited bank overdrafts may be obtained for any purpose, excluding trust funds, which a council is authorised to spend money.

The Treasurer is empowered, on the recommendation of the Minister, by the Public Authorities (Financial Accommodation) Act 1981 to guarantee the repayment of loans raised by the municipalities and shires situated within the Western Division and by county councils engaged in the supply of water or electricity services.

Loan rates must be levied in respect of renewal and ordinary loans, but a council may be exempted from doing so if it satisfies the Minister that it will meet interest and principal from its ordinary funds. Such loans are repayable in accordance with the terms as approved by the Governor, and unless they are repayable by instalments at yearly or half-yearly intervals, a sinking fund must be established to which appropriations are made in each year and to which interest earnings are credited.

County councils may raise loans if expressly authorised under the powers delegated by constituent councils. From May 1983, electricity county councils can only borrow from the New South Wales Treasury Corporation.

There are other approved forms of obtaining credit which councils may use. A six year summary of long term debt for municipalities, shires and county councils by type of service provided is shown in the table below.

Municipalities, Shires and County Councils, N.S.W. Long Term Debt by Type of Service *(a)* ($'000)

Particulars	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
	Ordinary services					
New long term dept raised during year	137,543	141,175	138,190	140,370	130,398	124,919
Debt redemption during the year —						
From revenue	49,587	56,758	65,168	73,331	83,674	95,891
From sinking funds	99	94	497	2,457	3,559	2,417
Gross long term debt at end of year	769,660	846,559	919,669	987,895	1,030,487	1,051,542
	Electricity					
New long term debt raised during year	60,429	63,825	93,936	76,757	60,435	39,734
Debt redemption during year —						
From revenue	25,065	23,227	31,856	33,083	40,142	45,354
From sinking funds	7,323	7,550	6,094	7,529	7,796	11,653
Gross long term debt at end of year	560,946	605,878	639,838	669,770	677,278	660,044

Particulars	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
Gas						
New long term debt raised during year	1,571	221	603	597	329	585
Debt redemption during year —						
From revenue	804	781	781	794	653	956
From sinking funds	—	—	—	27	—	—
Gross long term debt at end of year	8,508	7,828	7,640	7,463	6,387	6,103
Abattoirs						
New long term debt raised during year	6,935	6,064	5,335	4,963	4,683	400
Debt redemption during year —						
From revenue	2,505	1,905	2,209	2,012	2,216	7,868
From sinking funds	38	18	—	—	40	631
Gross long term debt at end of year	51,994	53,501	56,627	56,934	52,133	18,162
Water supply						
New long term debt raised during year	33,203	35,355	43,052	42,726	53,111	49,449
Debt redemption during year —						
From revenue	6,771	7,830	8,523	10,893	12,499	15,888
From sinking funds	42	68	236	648	820	47
Gross long term debt at end of year	217,411	235,709	272,803	303,106	340,485	372,161
Sewerage						
New long term debt raised during year	27,500	24,483	33,552	39,788	51,720	58,883
Debt redemption during year —						
From revenue	4,598	4,657	5,969	7,555	9,719	10,932
From sinking funds	17	—	3	15	667	24
Gross long term debt at end of year	178,424	189,450	217,636	250,099	291,560	338,139
Total, all services						
New long term debt raised during year	267,182	271,124	314,667	305,200	300,676	273,970
Debt redemption during year —						
From revenue	89,330	95,158	114,506	127,667	148,903	176,890
From sinking funds	7,519	7,731	6,829	10,676	12,882	14,773
Gross long term debt at end of year	1,786,942	1,938,925	2,114,213	2,275,266	2,398,329	2,446,151

(*a*) Gross long term debt at end of the previous year may not reconcile (after taking account of new debt raised and debt redemption during the year) with gross long term debt at end of the current year because of end of year adjustments.

STATISTICS OF LOCAL GOVERNMENT FINANCES

Provision Of Ordinary Services

Municipalities and Shires

A classification of ordinary services revenue and loan receipts during the last six years is given in the following table.

Municipalities and Shires, N.S.W.: Ordinary Services, Revenue and Loan Receipts ($'000)

Particulars	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
Revenue —						
Taxation —						
Rates	555,241	628,800	728,914	801,340	868,474	946,167
Licences, fees and fines	26,285	34,124	29,803	32,188	38,955	42,508
Total taxation	*581,526*	*662,925*	*758,717*	*833,528*	*907,429*	*988,675*
Government grants —						
General purpose	103,430	127,499	145,330	160,554	171,876	185,776
Specific purpose	82,206	79,592	98,215	120,484	198,180	215,519
Other revenue —						
Garbage charges	34,925	41,450	52,616	62,839	68,738	78,731
Other charges	93,231	113,346	130,145	140,510	160,950	168,631
Reimbursements received —						
Roads and bridges	96,073	98,770	104,320	110,365	150,140	158,690
Other	2,168	2,490	2,741	3,155	3,771	5,190
Interest received	51,449	71,651	99,828	86,094	96,011	133,268
Sale of land and fixed assets	48,406	57,420	57,400	50,738	76,193	99,666
Contributions and donations received	36,174	41,289	48,086	49,862	52,802	82,656
Other (*a*)	12,588	11,985	13,105	13,754	18,536	20,304
Total revenue	**1,142,175**	**1,308,416**	**1,510,504**	**1,631,883**	**1,904,625**	**2,137,106**
Loan receipts	**137,450**	**140,445**	**137,678**	**140,220**	**130,343**	**124,899**
Total receipts	**1,279,626**	**1,448,861**	**1,648,183**	**1,772,103**	**2,034,968**	**2,262,005**

(*a*) Includes ex gratia receipts.

All councils are very much dependent on four typical avenues of income, namely rates, government grants, road contracting and loans. Nearly three-quarters of income comes from those sources.

Municipalities and Shires, N.S.W: Ordinary Services, Outlay from Revenue and Loans ($'000)

Particulars	*1982*	*1981*	*1982*	*1983*	*1984*	*1985*
Outlay on goods, services and land —						
Capital	460,164	478,924	r546,192	534,209	613,432	714,106
Current	689,941	799,571	r887,289	1,010,122	1,132,544	1,240,828
Total	*1,150,105*	*1,278,495*	*1,433,482*	*1,544,331*	*1,745,975*	*1,954,933*
Debt charges —						
Interest paid	69,477	83,594	98,436	112,136	123,661	130,603
Debt redemption	49,483	58,047	70,206	79,019	89,394	102,615
Other —						
Levies paid to governments	21,160	24,012	28,458	34,521	39,474	39,712
Donations paid	5,046	6,734	5,545	6,403	5,909	7,004
Other	11,753	11,640	9,193	7,493	8,106	5,154
Total outlay from revenue and loans	**1,307,024**	**1,462,521**	**1,645,318**	**1,783,903**	**2,012,520**	**2,240,021**

Municipalities and Shires, N.S.W.: Ordinary Services, Outlay from Revenue and Loans on Goods, Services and Land, Classified by Purpose and by Selected Statistical Areas, 1985 ($'000)

Purpose	*Sydney Statistical Division*	*Newcastle Statistical District*	*Wollongong Statistical District*	*Other municipalities and shires*	*Total, New South Wales*
General public services	138,628	14,935	13,796	79,125	246,484
Public order and safety —					
Fire protection	4,430	777	416	7,516	13,139
Animal control	2,828	401	263	1,929	5,420
Other	2,682	431	574	1,021	4,707
Education —					
Preschools	1,887	1	183	929	3,000
Other	8	—	2	41	51
Health —					
Infants and mothers	1,236	137	86	239	1,697
Preventive services	19,552	2,439	1,018	9,068	32,076
Other	1,577	21	230	59	1,888
Welfare —					
Families and children	18,278	1,401	576	4,196	24,451
Aged and disabled	6,330	579	1,025	870	8,803
Other	5,844	346	458	1,785	8,434
Housing and community amenities —					
Housing	12,295	3,894	1,076	11,430	28,694
Sanitation — household garbage	72,751	7,536	3,844	21,594	105,725
Other garbage	44,291	2,921	2,262	6,720	56,194
Sewerage	9,893	1,458	1,697	2,138	15,186
Urban stormwater drainage	23,704	3,059	2,095	7,657	36,515
Other protection of environment	6,527	395	371	2,457	9,750
Street lighting	25,214	2,116	1,798	8,273	37,402
Community and regional development	26,344	2,124	1,746	11,320	41,535
Other community amenities	10,060	954	2,864	8,687	22,564
Recreation and culture —					
Public halls, civic centres	20,480	1,943	1,483	5,647	29,552
Swimming pools and beaches	16,086	3,616	1,954	10,520	32,176
Other recreation and sport	113,969	10,298	9,595	36,874	170,736
Libraries	44,668	5,089	2,960	15,992	68,709
Other culture	2,913	928	366	4,656	8,863
Agriculture and forestry	440	105	20	4,734	5,298
Building control	15,871	1,350	1,128	6,359	24,709
Mining and mineral resources and manufacturing	139	5	—	4,928	5,072
Transport —					
Roads and bridges —					
Construction and maintenance	276,506	46,022	19,963	314,613	657,103
Parking	20,506	1,891	1,226	6,325	29,948
Road plant purchases	16,263	1,972	341	35,876	54,451
Aerodromes	2	56	54	14,078	14,190
Other transport	1,602	20	121	1,003	2,747
Other economic affairs Tourism and area promotion	5,522	1,987	2,045	14,712	24,267
Saleyards and markets	22	1,117	—	3,718	4,858
Other economic affairs n.e.c	80	40	81	51	252
Other purposes n.e.c	80,749	9,399	2,901	25,239	118,289
Total ordinary services outlay	**1,050,177**	**131,762**	**80,618**	**692,377**	**1,954,933**

County Councils

The following table shows, for county councils in New South Wales, the revenue and loan receipts and total outlay from revenue and loans in respect of ordinary services during the last six years.

County Councils, N.S.W.: Ordinary Services Revenue and Loan Receipts, and Outlay from Revenue and Loans
($'000)

Particulars	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*
Revenue —						
Contributions by councils	997	1,089	1,285	1,434	1,598	1,686
Government grants	1,857	1,831	1,635	1,771	1,801	1,659
Other	1,366	1,769	1,823	2,124	2,237	2,149
Total revenue	**4,220**	**4,689**	**4,743**	**5,329**	**5,636**	**5,494**
Loan receipts	**93**	**730**	**512**	**150**	**56**	**20**
Outlay from revenue and loans —						
Outlay on goods, services and land —						
Capital	1,288	1,128	676	543	803	1,021
Current	2,738	2,366	3,457	3,888	4,162	4,062
Debt charges	482	569	750	783	808	743
Other	6	5	*(a)*1,007	7	10	8
Total outlay from revenue and loans	**4,514**	**4,068**	**5,890**	**5,221**	**5,782**	**5,835**

(a) Includes a transfer of $1m from a county council to a municipality.

Finances of Trading Undertakings

The major activities conducted by local government authorities are electricity supply, water supply and sewerage services, while some operate gas supply and abattoirs.

Electricity Trading Funds

At the end of 1985, there were 23 county councils out of 25 councils distributing electricity. The largest is the Sydney County Council which has customers in the City of Sydney as well as thirty two metropolitan municipalities and shires. It is the major buyer of bulk power from the Electricity Commission of New South Wales for this purpose.

The income and outlay during recent years of councils operating electricity undertakings are shown in the following table.

Municipalities, Shires and County Councils, N.S.W.: Electricity Trading Undertakings, Income and Outlay
($'000)

Particulars	*1983*	*1984*	*1985*		
			Municipalities and shires	*County councils*	*Total*
Current income and outlay					
Trading income	2,117,676	2,197,514	12,548	2,342,037	2,354,585
Government grants — current	4,984	18,942	224	16,689	16,913
Other income	37,930	53,429	560	78,095	78,655
Total income	**2,160,590**	**2,269,886**	**13,332**	**2,436,821**	**2,450,153**
Trading working expenses	1,978,511	2,115,504	12,017	2,275,820	2,287,837
Other current outlay	76,230	80,047	—	81,201	81,201
Total outlay	**2,054,741**	**2,195,551**	**12,017**	**2,357,021**	**2,369,038**
Capital Transactions					
Loan receipts	76,757	60,435	—	39,734	39,734
Depreciation allowances	95,451	104,505	433	111,569	112,002
Other, incl. surplus/deficit	72,748	100,485	1,689	161,987	163,676
Total source of funds	**244,955**	**265,426**	**2,122**	**313,289**	**315,411**
Expenditure on fixed assets	206,495	209,323	2,112	229,444	231,556
Other, incl. debt redemption	38,461	56,102	10	83,845	83,855
Total use of funds	**244,955**	**265,426**	**2,122**	**313,289**	**315,411**

Gas Trading Funds

The supply of gas for domestic, industrial, and other purposes in New South Wales is undertaken mainly by private enterprise. Some councils still operate gas utilities. In 1985 current income and outlays were $28.1m and $26.6m respectively. Capital expenditure was $1.8m.

Abattoir Trading Funds

Councils are allowed to conduct abattoirs. However, the New South Wales Meat Industry Authority, established under the Meat Industry Act, 1978, approves licences for operating abattoirs.

In 1984-85, the government rationalised the number of abattoirs. At 30 June 1987, there were only two council-owned abattoirs operating. In 1985, the current income and outlays were $38.7m and $36.5m, respectively. Capital expenditure was $0.5m.

Water Supply and Sewerage Funds

The water supply and sewerage systems of the Sydney, Wollongong, and Newcastle districts and of Broken Hill and Cobar are administered by statutory boards. The larger systems are described later in this division. Usually other domestic water supply and sewerage works in New South Wales, except those associated with irrigation schemes, are vested in municipal, shire, and county councils.

Under a scheme of assistance to councils for the establishment and extension of water supply and sewerage works, the State makes capital grants in approved cases (in country areas not served by the Metropolitan or Hunter District Boards). As a general rule, the State grant is limited to one-half of the total capital cost.

The following table summarises the income and outlay of the water supply undertakings in recent years.

Municipalities, Shires, and County Councils, N.S.W.: Water Supply Undertakings, Income and Outlay
($'000)

			1985		
Particulars	*1983*	*1984*	*Municipalities and shires*	*County councils*	*Total*
		Current income and outlay			
Trading income	101,070	116,628	119,101	17,164	136,265
Government grants — current	2,424	4,556	1,918	799	2,717
Other income	5,826	7,532	9,097	1,226	10,323
Total income	**109,320**	**128,717**	**130,116**	**19,189**	**149,305**
Trading working expenses	70,082	78,259	76,178	11,714	87,893
Other current outlay	32,803	40,154	41,019	5,325	46,345
Total outlay	**102,885**	**118,412**	**117,198**	**17,040**	**134,237**
		Capital transactions			
Loan receipts	42,726	53,111	39,850	9,599	49,449
Depreciation allowances	13,164	18,721	17,419	1,848	19,267
Other, incl. surplus/deficit	27,455	65,733	53,236	7,924	61,160
Total source of funds	**83,345**	**137,565**	**110,505**	**19,372**	**129,876**
Expenditure on fixed assets	69,450	120,231	87,342	17,114	104,456
Other, incl. debt redemption	13,895	17,335	23,163	2,257	25,420
Total use of funds	**83,345**	**137,565**	**110,505**	**19,372**	**129,876**

The income and outlay of sewerage undertakings are summarised, for recent years, in the next table.

**Municipalities, Shires and County Councils, N.S.W.: Sewerage Undertakings, Income and Outlay
($'000)**

Particulars	*1983*	*1984*	*1985*		
			Municipalities and shires	*County councils*	*Total*
	Current income and outlay				
Trading income	67,235	79,361	93,817	—	93,817
Government grants — current	1,694	2,040	1,875	—	1,875
Other income	5,508	6,363	9,250	—	9,250
Total income	**74,437**	**87,763**	**104,943**	—	**104,943**
Trading working expenses	45,097	56,388	61,179	—	61,179
Other current outlay	26,840	32,487	39,878	—	39,878
Total outlay	**71,937**	**88,875**	**101,058**	—	**101,058**
	Capital transactions				
Loan receipts	39,788	51,720	58,883	—	58,883
Depreciation allowances	11,644	19,591	20,105	—	20,105
Other, incl. surplus/deficit	13,317	55,137	59,060	—	59,060
Total source of funds	**64,748**	**126,448**	**138,048**	—	**138,048**
Expenditure on fixed assets	53,876	107,586	110,471	—	110,471
Other, incl. debt redemption	10,872	18,862	27,576	—	27,576
Total use of funds	**64,748**	**126,448**	**138,048**	—	**138,048**

METROPOLITAN WATER SEWERAGE AND DRAINAGE BOARD

The Metropolitan Water Sewerage and Drainage Board (to be called "Water Board" from July, 1987) controls water supply and sewerage services throughout an area of over 13,000 square kilometres, which covers the whole of the metropolitan area of Sydney and a number of outlying areas including the City of Wollongong, the City of the Blue Mountains and Shellharbour and Kiama Municipalities.

Rates are calculated on values of properties determined by the Valuer-General. For residential properties, rates are calculated on *land values*; whereas for non-residential properties, rates are calculated on *assessed annual values*. For mixed development properties (land having buildings which are made up of both residential and non-residential sections), the rates are based on a combination of land values and assessed annual values.

Metropolitan Water Sewerage and Drainage Board: Income and Expenditure ($000)

	1983-84	*1984-85*	*1985-86*
Income —			
Rates less rebates	523,884	584,375	620,034
Service charges	54,342	59,041	63,112
Investment income	94,341	109,177	113,755
Other	3,151	10,971	19,061
Total income	**675,718**	**763,564**	**815,962**
Expenditure —			
Operations	166,295	165,050	178,636
Administrative and management	365,667	477,443	530,841
Total expenditure	**531,962**	**642,493**	**709,477**
Operating surplus	**143,756**	**121,071**	**106,485**

Financing charges of $254.8 million ($257.5 million in 1984-85) in 1985-86, were the major element in non-operational spending.

Metropolitan Water Sewerage and Drainage Board: Flow of Funds

Saving and Capital Formation	*1984-85*	*1985-86*
	$000	$000
Net Inflow from operations	259,749	284,560
Developers contributions	46,771	57,032
Reduction in provisions	−47,983	−63,172
Other	—	292
Saving	258,537	278,712
Expenditure on fixed assets	**282,666**	**281,237**
Sales of fixed assets	−21,943	−12,052
Increase in stores and materials	4,032	−549
Capital Formation	264,755	268,636
Net Borrowing (−) or Lending (+)	**−6,218**	**10,076**
Financial Account		
Increases in Financial Assets		
Debtors	15,765	−326
Bank Accounts	−17,312	20,776
Short Term Investments	64,512	79,961
Long Term Investments	−148	−37
	62,817	100,374
Incurrence of Liabilities		
Net Loan Raisings	44,923	82,629
Creditors	24,112	7,669
	69,035	90,298
Surplus on Financial Account	**−6,218**	**10,076**

The major sources of funds for the Board are derived from the income from water charges, and loan raisings. The greater part of non-operational outgoings relate to fixed assets, and investments with short maturities. The net term debt of the Board, at 30 June 1986, was $1,756.4 million which excludes its own treasury stock. The net fixed assets at that date were $3,396.8 million.

HUNTER DISTRICT WATER BOARD

The Hunter District Board provides water, sewerage, and drainage services in the Cities of Newcastle, Maitland, Greater Cessnock, the Municipality of Lake Macquarie and the Shire of Port Stephens.

Hunter District Water Board : Income and Expenditure Account. ($'000)

	1983-84	*1984-85*	*1985-86*
Income —			
Rates, income and water metered accounts	73,480	82,652	87,265
Investment income	9,754	11,885	14,806
Other	1,644	529	1,289
Total Income	**84,878**	**95,066**	**103,360**
Expenditure —			
Operating expenses	68,874	79,462	89,558
Other	15,997	15,602	13,477
Total expenditure	**84,871**	**95,065**	**103,035**
Surplus for the year	7	1	325

During 1985-86, operating expenses included financial charges of $29.4 million ($28.9 million).

Hunter District Water Board: Flow of Funds

Saving and Capital Formation	*1984-85*	*1985-86*
	$000	$000
Net Inflow from Operations	**21,640**	**26,947**
Developers Contributions	6,440	6,608
Reduction in Provisions	−2,461	−4,041
Government Grants	1,879	4,207
Other	−18	—
Saving	27,480	33,721
Expenditure on Fixed Assets	**23,417**	**27,539**
Sales of Fixed Assets	—	−509
Increase in Stores and Materials	49	−191
Capital Formation	23,466	26,840
Net Borrowing (−) or lending (+)	**4,014**	**6,882**
Financial Account	2,031	959
Debtors		
Bank Accounts	−85	1,330
Investments	13,492	15,237
Increases in Financial Assets	15,438	17,527
Net Loan Raisings	**9,140**	**9,268**
Creditors	2,284	1,378
Incurrence of Liabilities	11,424	10,646
Surplus on Financial Account	**4,014**	**6,882**

The major sources of funds for the Board are income from rates and charges, and loan raisings. The greater part of non-operational outgoings relate to fixed assets, and investments which are mostly short dated. The net term debt of the Board, at 30 June 1986, was $226.014 million which excludes its own treasury stock. The net fixed assets at that date were $411.868 million.

FURTHER REFERENCES

A.B.S. Publications (Central Office): *Standardised Local Government Finance Statistics, Australia* (Catalogue No. 1212.0); *Classifications Manual For Government Finance Statistics, Australia* (1217.0); *Commonwealth Government Finance* (5502.0);*State and Local Government Finance, Australia* (5504.0); *Taxation Revenue Australia* (5506.0). **A.B.S. Publications (N.S.W. Office):** *Monthly Summary of Statistics, New South Wales* (1305.1); *Pocket Year Book of New South Wales* (1302.1); *Local Government Finance, New South Wales* (5502.1). **Other Publications:** Commonwealth Budget Papers — Budget Speech, Payments to or for the States, the Northern Territory and Local Government Authorities, and Government Securities on Issue at 30 June; Public Accounts of New South Wales; Report of the Auditor-General; Budget Papers of New South Wales; Annual Reports of — Metropolitan, Water, Sewerage and Drainage Board, Hunter District Water Board, Public Works Department, Local Government Grants Commission, and Department of Local Government.

23

PRIVATE FINANCE

CURRENCY, BANKING AND EXCHANGE RATES

CURRENCY

Under the Constitution, the control of currency, coinage, and legal tender is vested in the Commonwealth Government.

Since 14 February 1966, Australia has had a decimal currency system, in which the monetary unit (the dollar — $) is divided into 100 cents. The denominations of Australian notes and coins currently on issue are:

Notes: $2, $5, $10, $20, $50, and $100.

Coins: 1, 2, 5, 10, 20, and 50 cents, $1, $10, $15, $25, $50, $100 and $200.

Notes and the $15, $25, $50, $100 and $200 coin are legal tender in Australia for any amount. The 1 and 2 cent coins are legal tender for any amount not exceeding 20 cents, the 5, 10, 20, and 50 cent coins are legal tender for any amount not exceeding $5 and the $1 coin is legal tender for any amount not exceeding $10. The $10 coin is of silver; it was first issued in 1982 (at a premium) as a collector coin and is legal tender for any amount not exceeding $100. Coins between $15 and $200 are of gold. The $15, $25, $50 and $100 coins were first issued in 1986 (at a premium) as collector coins. A $2 coin made from aluminium-bronze alloy is being minted and is planned to be issued in 1988, replacing the $2 note. The $200 coin was first issued in 1980 (at a premium) as a collector coin. Australian notes are issued by the *Reserve Bank of Australia* (under the authority of the *Reserve Bank Act 1959*). Australian coins are minted by the Royal Australian Mint, and sold (at face value) to the Reserve Bank which issues them to banks.

For more detailed information on Note and Coin issue refer to Year Book Australia No 70.

BANKING

With Federation in 1901, the Commonwealth Parliament was given power under Section 51 of the Constitution Act to legislate with respect to "Banking", other than State Banking; but including State Banking extending beyond the limits of the State concerned, the incorporation of banks and the issue of paper money.

The principal Acts in force relating to banking are

(a) *The Reserve Bank Act 1959* which provides for the constitution and management of the Reserve Bank of Australia, the administration of the Banking Act 1959 and the management of the Australia note issue.

(b) *The Commonwealth Bank Act 1959* which provides for the constitution and management of the Commonwealth Banking Corporation and the Commonwealth Development Bank of Australia.

(c) *The Banking Act 1959* which provides for the regulation of banking and the protection of depositors.

Manuscript of this chapter prepared in August 1987.

The Banking Act 1959 applies to all banks operating in Australia or its Territories except State banks trading in their own State. The objects of the Act are *(a)* to provide a legal framework uniform throughout Australia for regulating the banking system; *(b)* to safeguard depositors from loss; *(c)* to provide for the co-ordination of banking policy under the direction of the Reserve Bank; *(d)* to control the volume of credit in circulation and bank interest rates; *(e)* to provide machinery for the control of foreign exchange.

For detailed information on the Reserve Bank of Australia refer to Year Book Australia No 70.

Some States have enacted legislation which provide for the incorporation of government bodies to undertake general banking business. In New South Wales the principal banking act in force is the State Bank Act 1981. Details on the State Bank of New South Wales are included later in this chapter.

For statistical purposes the four largest trading and savings banks are referred to as major banks.

Reserve Bank of Australia

The Reserve Bank is Australia's central bank. The functions, powers, and responsibilities of the Bank are set out in the *Reserve Bank Act 1959*, the *Banking Act 1959*, the *Financial Corporations Act 1974* and the Regulations under those Acts. While a major purpose of the Bank is the formulation and implementation of monetary policy, it maintains prudential supervision of banks in relation to large credit exposure. The bank also operates a substantial banking business and provides a range of financial services. It is banker to governments, banks and certain financial institutions; manages the note issue. As agent for the Commonwealth Government, the Bank distributes coin and manages stock registries for Commonwealth Government securities. In the international sphere, the Bank monitors the operations of the Australian foreign exchange market; it also buys and sells foreign currencies in exchange for Australian dollars on its own behalf and for its customers, including the Commonwealth Government. The Bank is also the custodian of Australia's gold and foreign exchange reserves.

Trading Banks

Trading bank facilities in New South Wales are provided by twenty six trading banks.

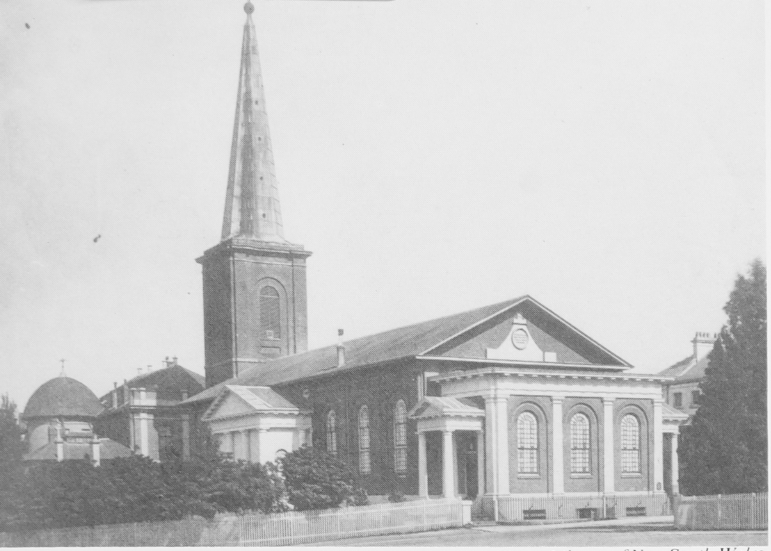
The number of branches and amount of deposits, advances and debits to customers accounts for all trading banks in New South Wales for the last six years are shown in the table below. Large sums held by the banks in the form of cash balances, Statutory Reserve Deposits with the Reserve Bank, and investments in Government securities are omitted from this statement.

All Trading Banks: Deposits, Advances and Debits to Customers Accounts in N.S.W. *(a)*

Month of June	*Number of branches*	*Deposits*			*Loans advances and bills discounted (b)*	*Ratio of loans, etc. to total deposits*	*Debits to customers accounts (c)*
		Current	*Fixed*	*Total*			
		$m	$m	$m	$m	Per Cent	$m
1980	1,843	4,834	6,829	11,664	8,777	75.3	10,516
1981	1,870	5,236	7,580	12,815	10,024	78.2	12,319
1982	1,887	5,139	9,292	14,431	11,400	79.0	17,918
1983	1,905	5,212	10,348	15,560	11,919	76.6	17,788
1984	1,834	5,686	10,961	16,647	13,148	79.0	26,971
1985	1,814	*(e)*6,851	*(e)*13,595	*(e)*20,448	*(d)*16,232	*(d)*79.4	42,968
1986	1,885	6,297	16,740	23,038	22,950	99.6	58.972
1987	1,872	7,732	16,278	24,010	26,643	111.0	84,752

(a) Average of weekly figures. *(b)* Excludes Loans to authorised dealers in short-term money market. *(c)* "Debits" refer to all trading banks, the Commonwealth Development Bank, and the Rural Credits Department of the Reserve Bank. The figures exclude debits to Commonwealth and State Government accounts at branches of the banks in the City of Sydney. *(d)* Break in series due to inclusion of foreign currency deposits. *(e)* Break in series due to a change in accounting arrangements by some banks.

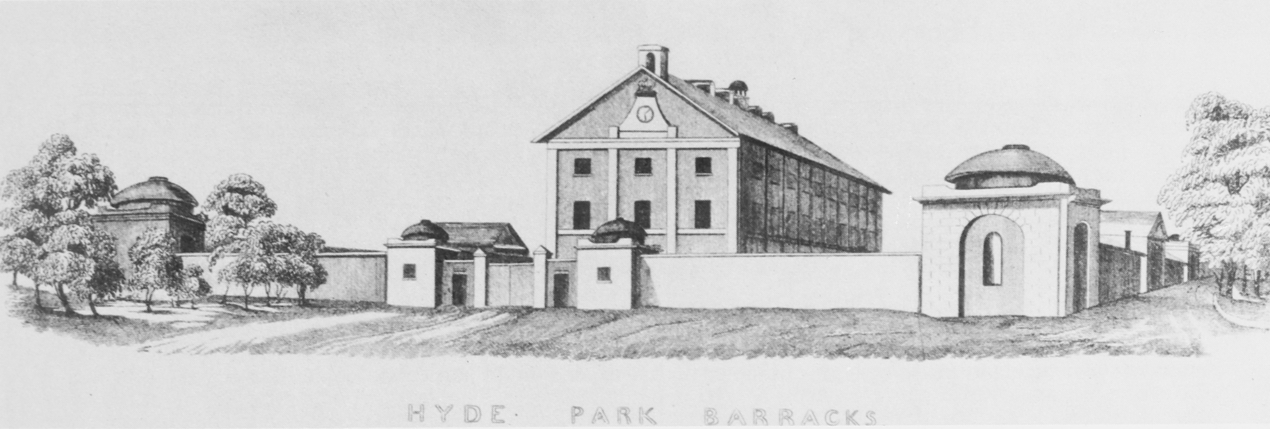
Interest rates on deposits lodged with, and loans made by, trading banks are shown later in this chapter in the division "Interest Rates".



Mitchell Library, State Library of New South Wales

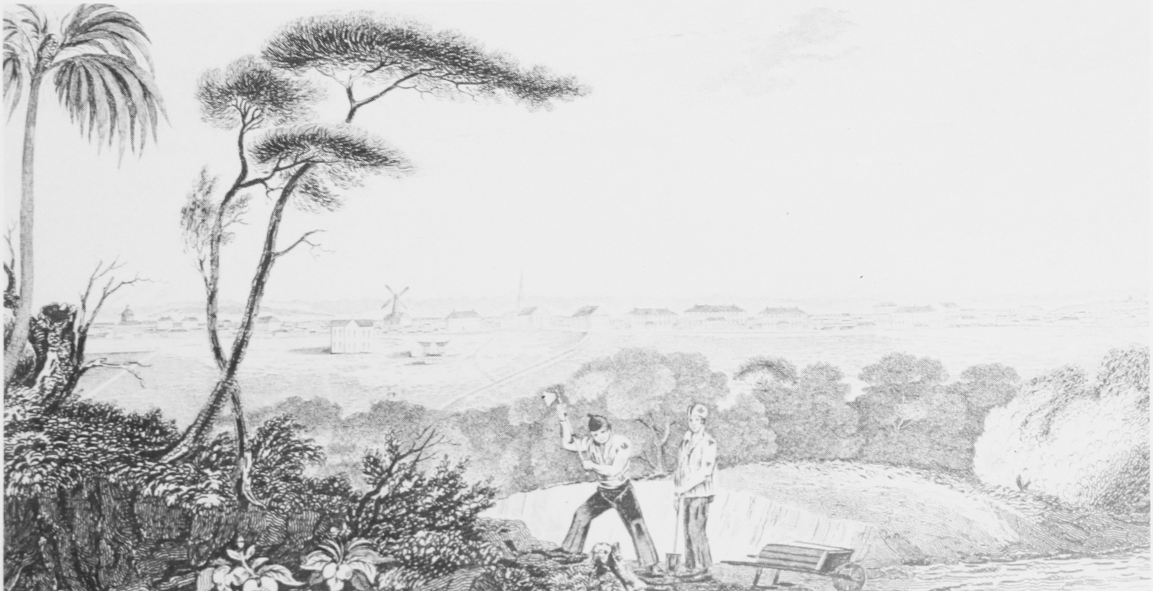
St James' Church (left) and Hyde Park Barracks (below), Macquarie Street, Sydney, designed by Francis Greenway. Most of the church is still original, except for the eastern portico, harmoniously added by John Verge in 1834. In both buildings, repetition of the same classical proportions in such details as walls, bays and windows give unity and strength to the buildings. Often said to be Greenway's best building, the Hyde Park Barracks was completed in 1819. This sketch, made by Joseph Fowles in 1848, shows the compound of closely-knit buildings originally intended by Greenway; today, however, only the main (dormitory) building remains. Common to both buildings is the neatly inscribed clock surround so typical of Macquarie buildings. After serving as law courts for many years, the Barracks' main building has recently been restored, and a new brick surrounding wall erected, to enhance an upgraded Macquarie Street to celebrate Sydney's bicentenary.

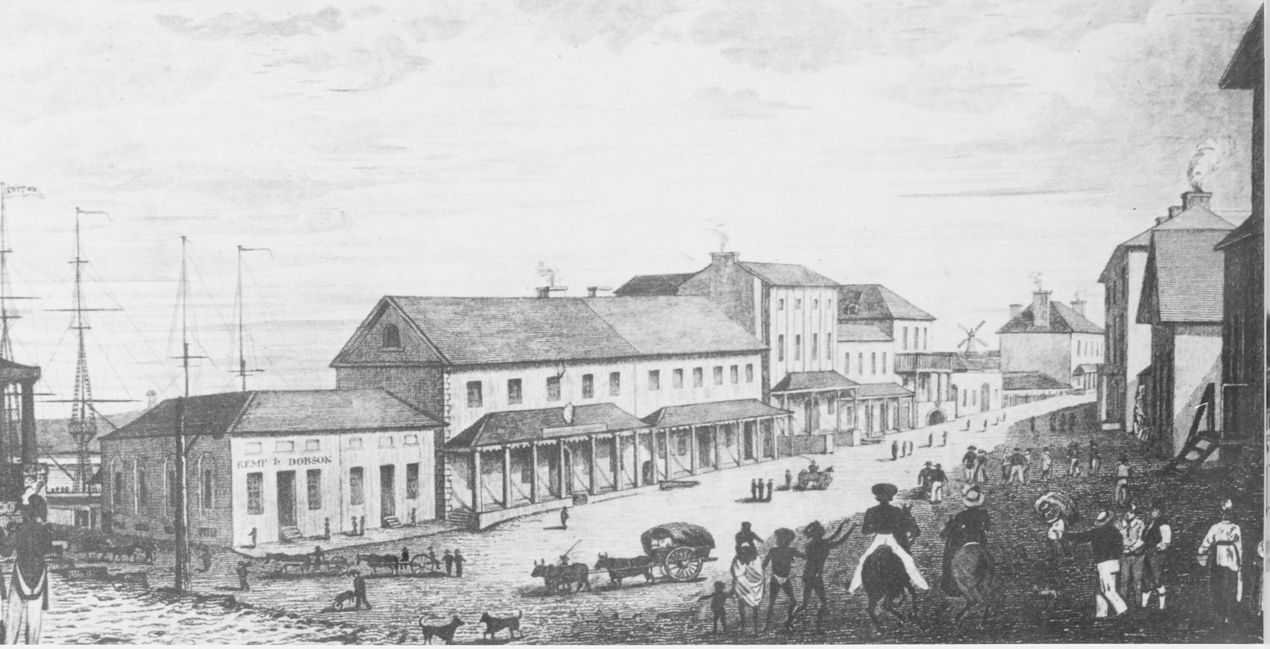
Source: Sydney in 1848, Joseph Fowles



Below: The sketch is taken from an 1829 copper engraving by John Carmichael, artist and foremost engraver in the infant colony. It shows Sydney from Woolloomooloo Hill (site of the present Art Gallery of New South Wales). In centre background can be seen Hyde Park Barracks and the spire of St James' Church and, to the right, the outlines of buildings extending northwards along Macquarie Street. Convicts, depicted here in typical garb, continued to be transported to New South Wales in diminishing numbers and, in 1837, under Governor Bourke, a policy of free immigration was established. In 1840, an English Order-in-Council finally abolished transportation to New South Wales.

National Library of Australia



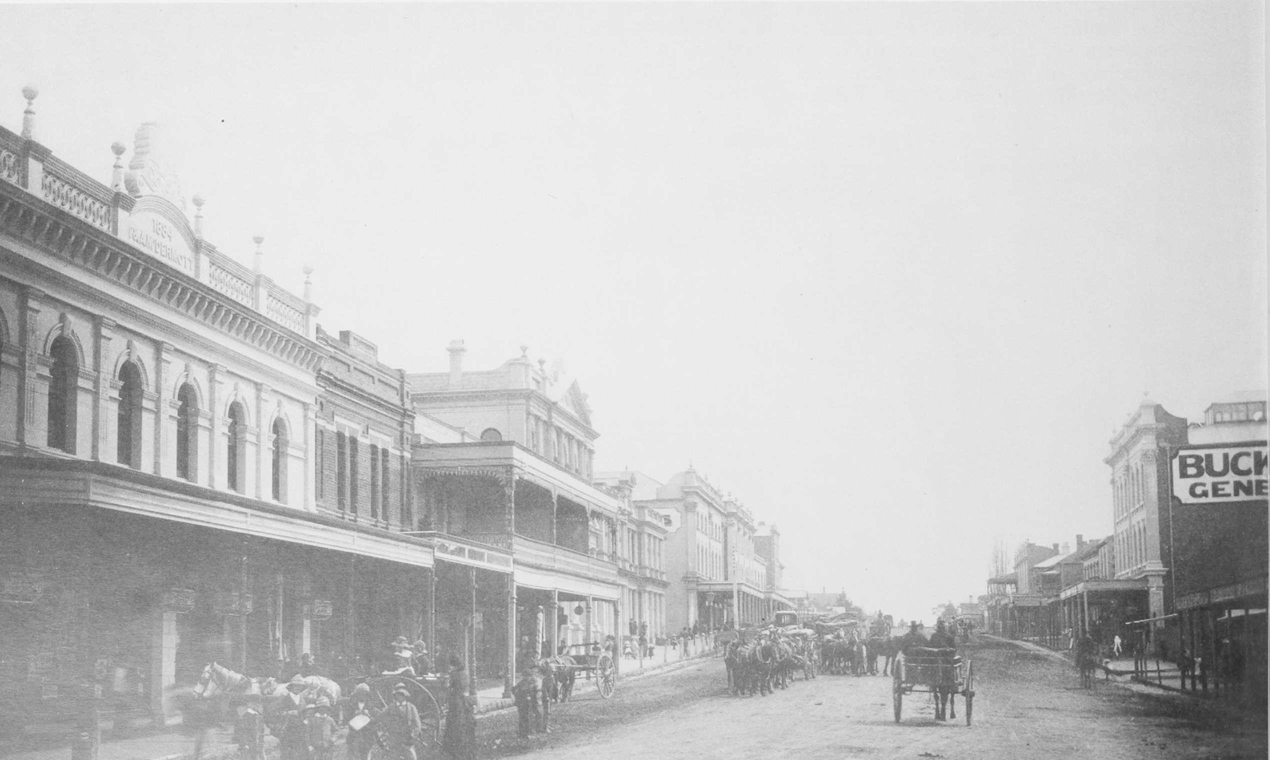


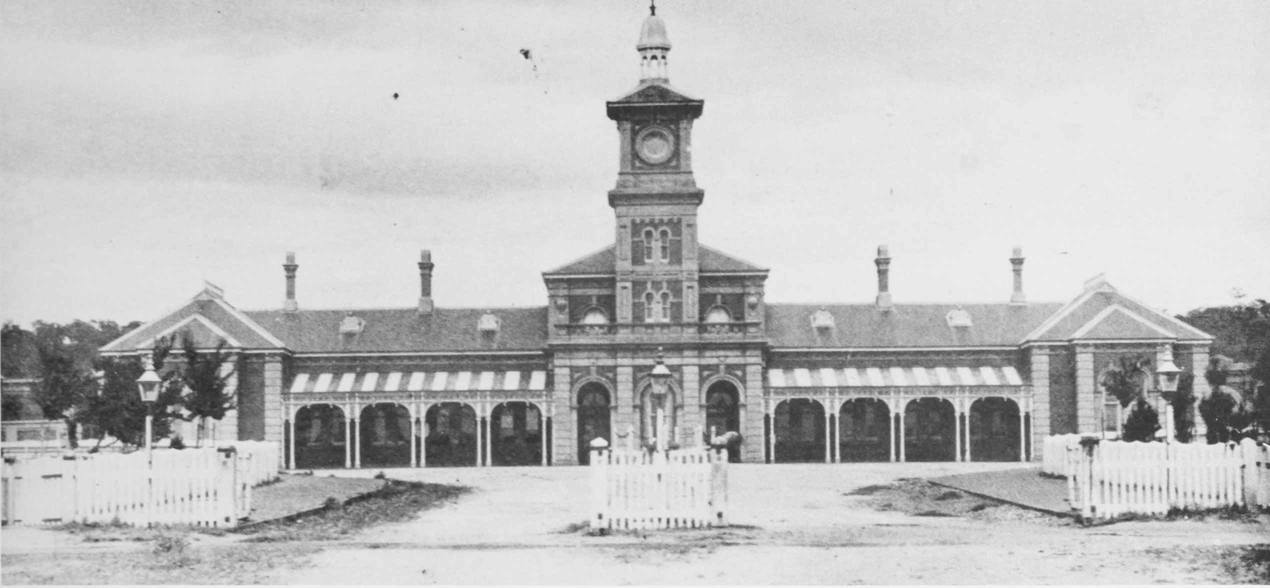
National Library of Australia

Above: Lower George Street from the Wharf. An engraving by John Carmichael, 1829. This area of Sydney (present George Street North on the site of the Maritime Services Board offices looking south) was the busiest centre of mercantile activity during Macquarie's stay in the Colony. The King's Wharf is at the extreme left of the picture; the next two buildings were owned by Isaac Nichols who conducted a general store in the first and lived in and used the second building as the Colony's first post office between 1809 and 1819. The next (the second verandahed) building was a general store run by Mary Reiby. The building to the left of the windmill was the office of Australia's first newspaper, the "Sydney Gazette" from 1810 when its proprietor George Howe married Sarah, the widow of Edward Wills, and moved the Gazette into her general store.

Below: Summer Street, Orange. This main street was typical of those laid down in most New South Wales country towns in the last century. In 1829, Governor Darling's interest in town planning had led him to issue a set of regulations for government surveyors, and some of these were responsible for imposing a uniform pattern on many of the new inland towns emerging in the post-1830 expansion. In particular, the main street was to be the focus of a rectilinear street plan measuring at least one hundred feet with eighty feet of carriageway. This photo also illustrates the uniformity required of buildings in distance from the footpath and in height. The importance of the verandah as a practicality in country architecture is also obvious.

N.S.W. Government Printer



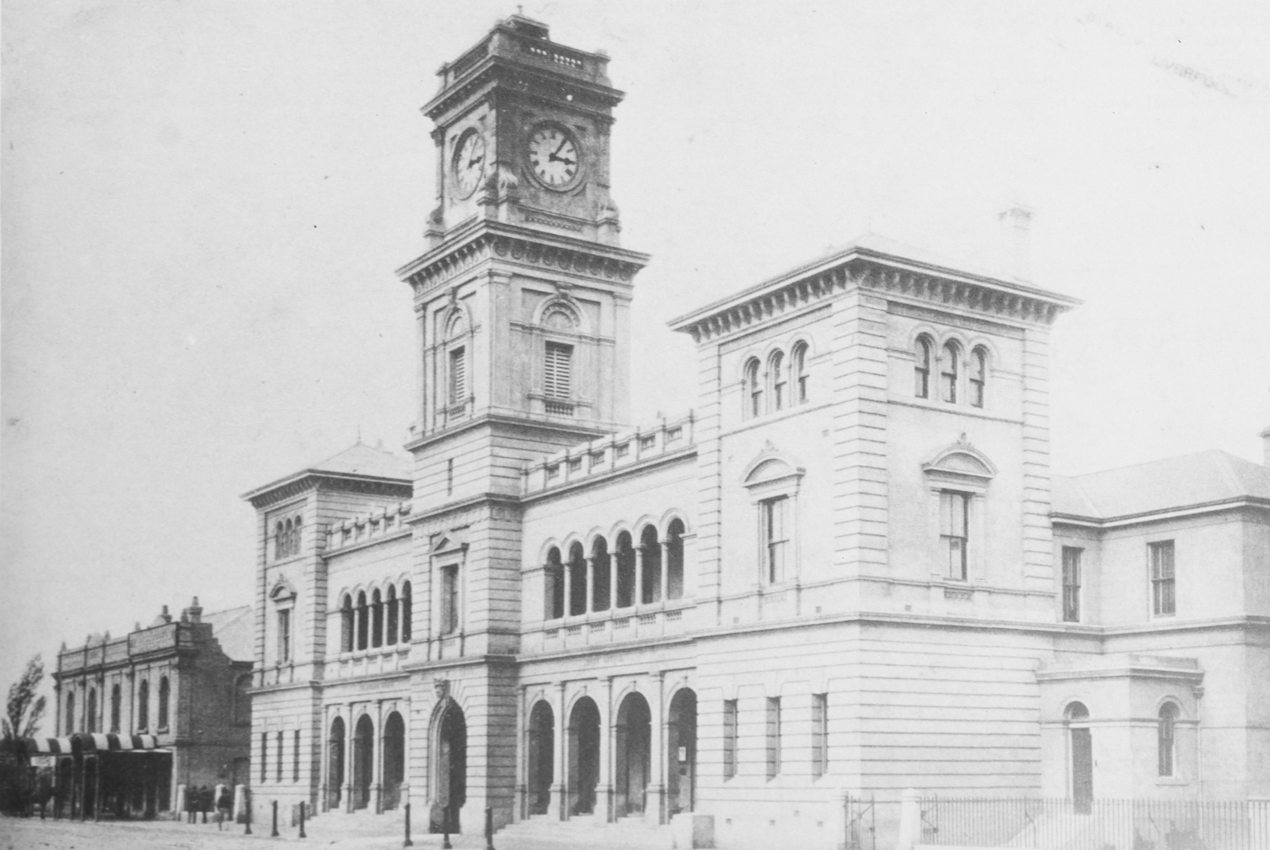


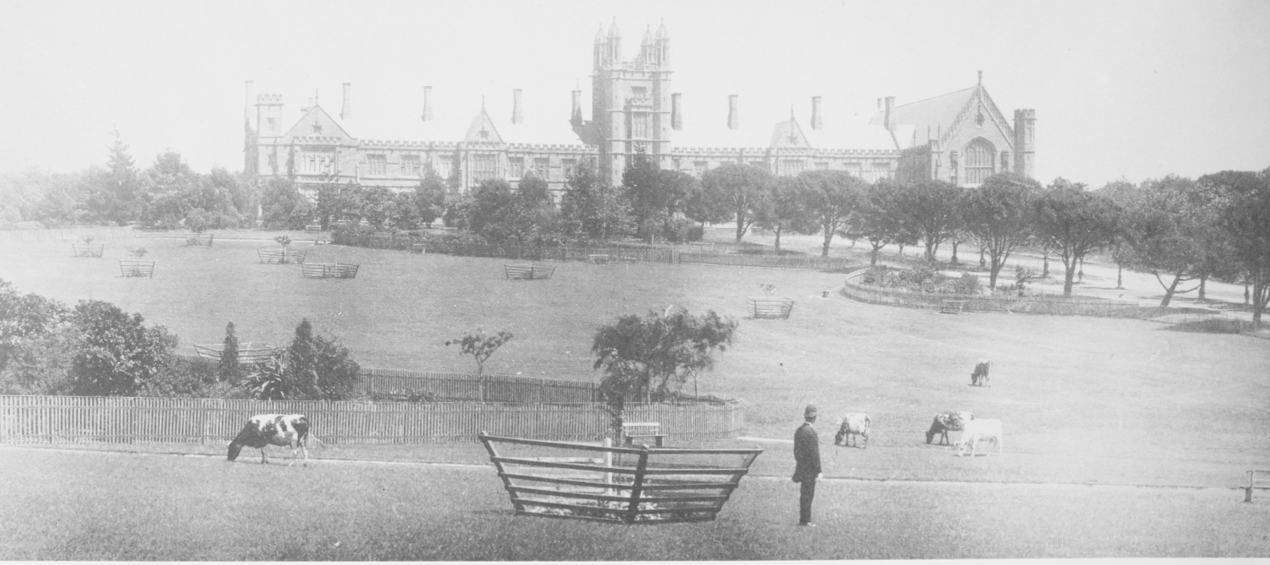
Mitchell Library, State Library of New South Wales

Above: Albury Railway Station. Built in 1881 to a design under the direction of Railway Chief Engineer, John Whitton, Albury's main interest lay in being a terminus and changeover point. In 14 June 1883, the junction of the rail systems of New South Wales and Victoria was completed, amid much celebration at Albury, and the first train journey between Melbourne and Sydney took place on 20 August 1883. The two colonies, however, still continued to use differing line gauges for the next eighty years, creating considerable inconvenience in the transfer of both passengers and freight.

Below: Post Office, Auburn Street, Goulburn, built in 1881 to a design from the Office of the Colonial Architect, James Barnet. Typical of post offices erected in many New South Wales country towns during the early 1880's, this building reflected the expansion of postal services in the last half of the 19th century and the increased activity in public building. The stone arcades so prominently featured here were one way in which climatic demand and architectural criteria could be reconciled. They were particularly suitable where a heavy traffic of people occurred and, in the country, had the added advantage of mitigating the harsh rays of the sun. They were also a feature on many Sydney buildings, including large hotels and the General Post Office. The carving of Queen Victoria's head above the entrance was common on many public buildings in Victoria's time — compare the Metropolitan Fire Station pictured later.

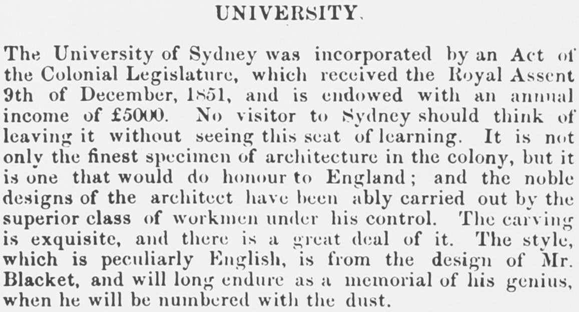
Mitchell Library, State Library of New South Wales





N.S.W. Government Printer

Above: Sydney University as it appeared in 1887. The University's main buildings were built between 1854 and 1860 by Edmund Thomas Blacket, "the leader of Australian Gothic", using stone excavated from the Pyrmont quarries. The buildings on the University's eastern front, with their curved entrance and central tower, were based on the medieval colleges of Oxford and Cambridge, but Blacket added a symmetry and balance usually absent from medieval building. The Great Hall (extreme right of photo) was copied from London's Westminster Hall, but it bears Blacket's unique blend of tradition and individuality. It is credited with the finest timber roof in Australia. Blacket also designed St Paul's College, within the University grounds.

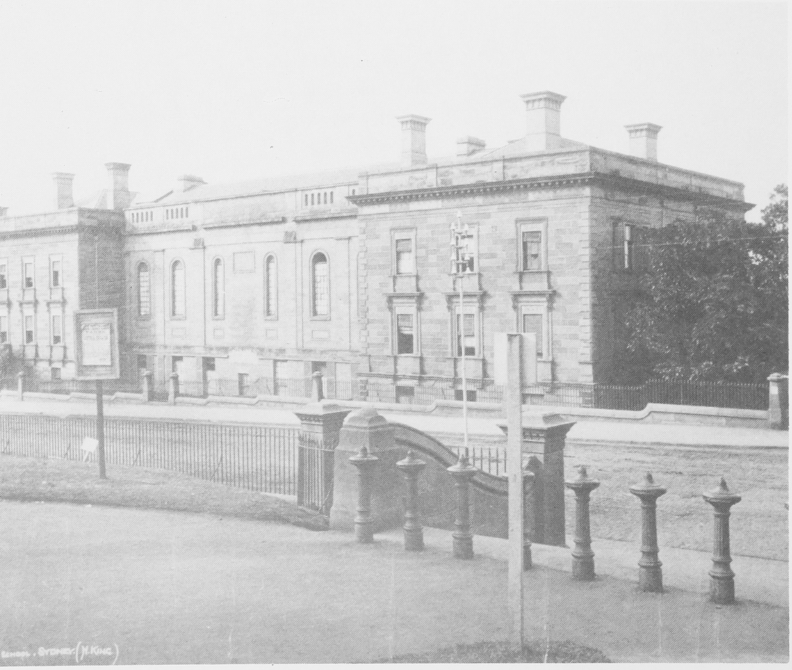


UNIVERSITY.

The University of Sydney was incorporated by an Act of the Colonial Legislature, which received the Royal Assent 9th of December, 1851, and is endowed with an annual income of £5000. No visitor to Sydney should think of leaving it without seeing this seat of learning. It is not only the finest specimen of architecture in the colony, but it is one that would do honour to England; and the noble designs of the architect have been ably carried out by the superior class of workmen under his control. The carving is exquisite, and there is a great deal of it. The style, which is peculiarly English, is from the design of Mr. Blacket, and will long endure as a memorial of his genius, when he will be numbered with the dust.

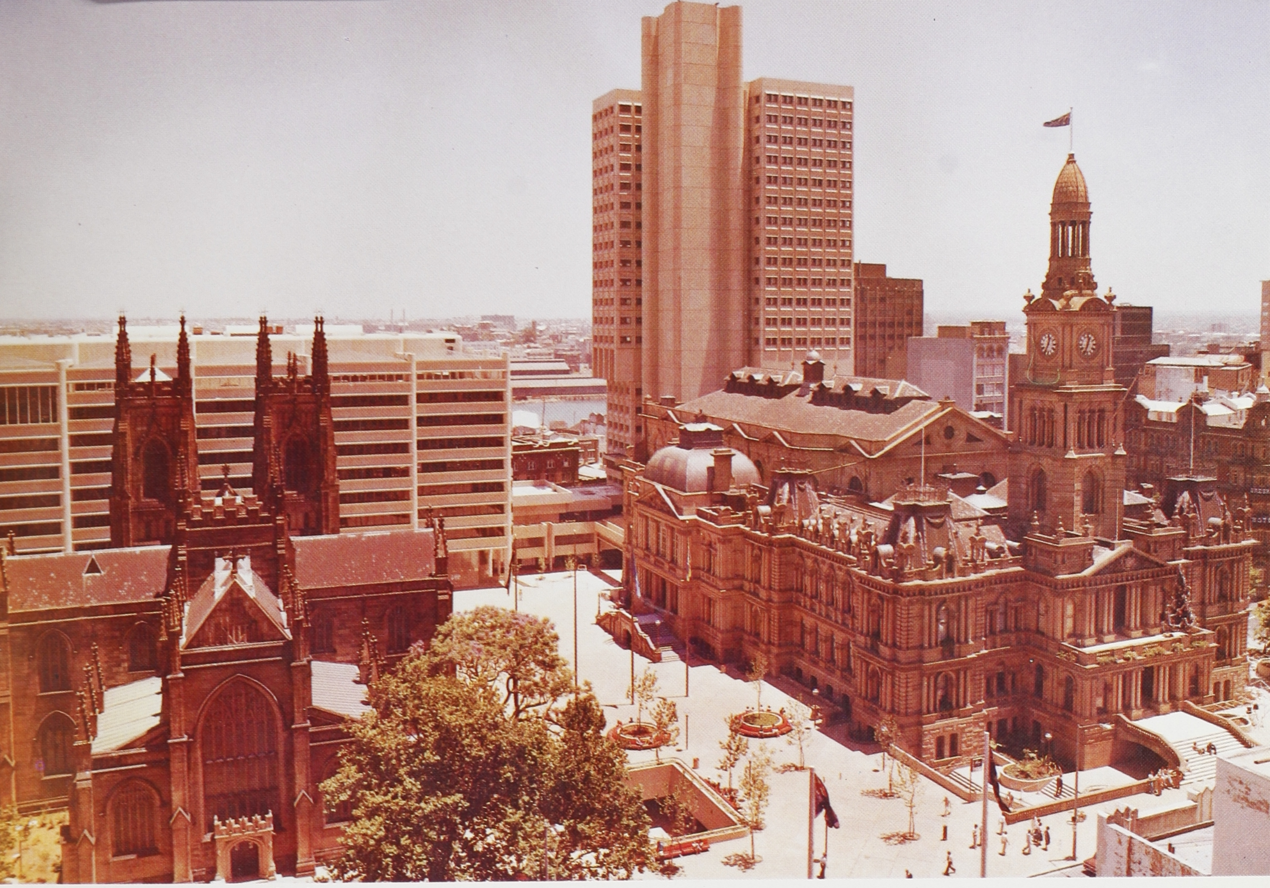
Left: An item in J.W. Waugh's "The Stranger's Guide to Sydney", announcing the incorporation of the University of Sydney and describing its salient features. Blacket's buildings still form the pivot of the University, but now comprise only a small section of the many buildings added by other architects over the years, especially by Professor Leslie Wilkinson, the first professor of Architecture, at Sydney University from the 1920s.

The Stranger's Guide to Sydney, edited by J.W. Waugh, 1861



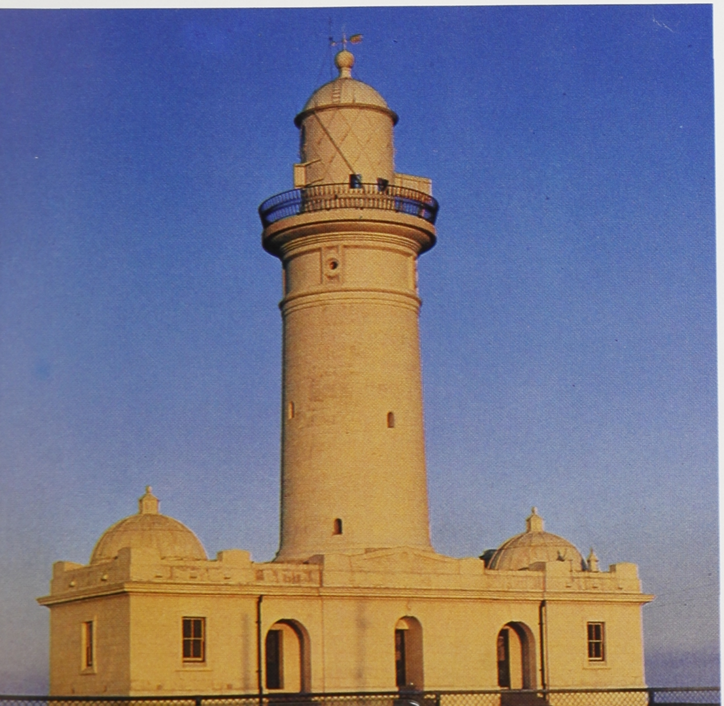
Left: Sydney Grammar School. Sydney College, designed by the architect Edward Hallen and completed in 1832, comprised originally only the central portion of the present building. It first served as a university for Sydney, but the College was later converted into a grammar school. By 1854, Edmund Blacket was at work upon the new University of Sydney, and Sydney Grammar was therefore envisaged as requiring enlargement if it was to function as a preparatory school for the university. To the central Hallen building, Blacket added two wings using a classical architectural style in interesting contrast to the gothic style of his university buildings. Blacket encountered some difficulties, mainly because of street boundaries and land restrictions, and the eastern facade is not as he planned. The small, central panes seen in the photo have long since been replaced by large sheets of glass.

Mitchell Library, State Library of New South Wales



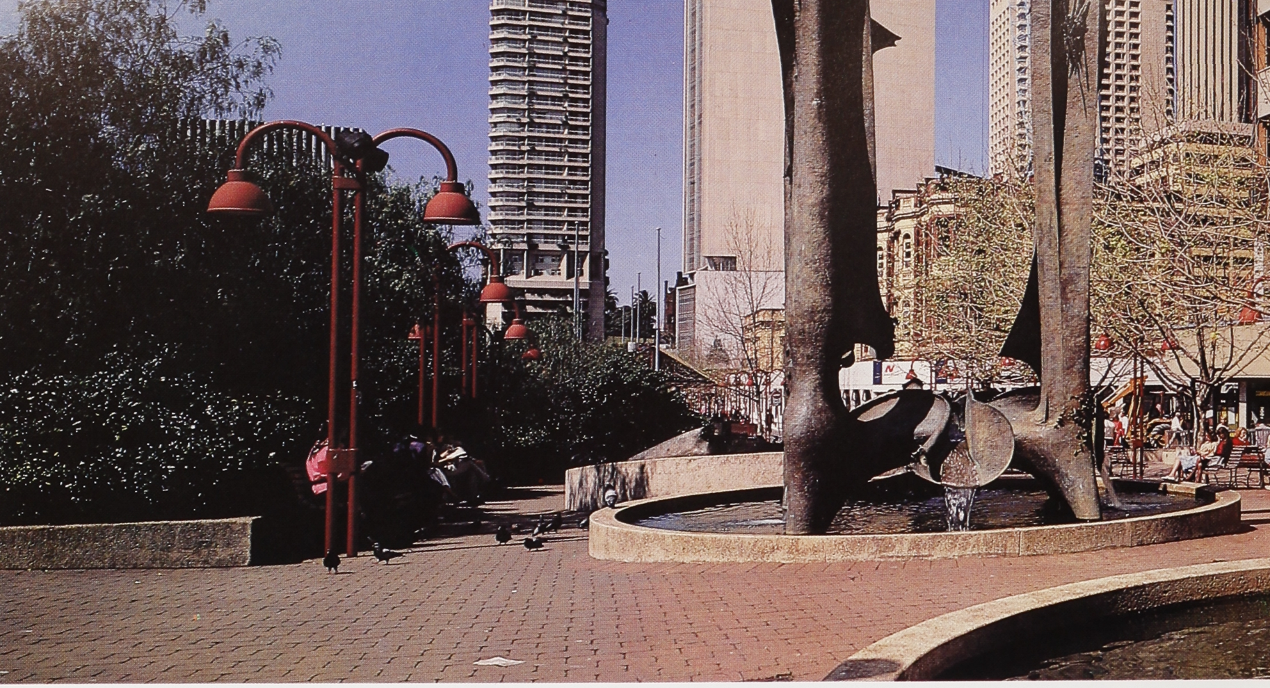
The Council of the City of Sydney

Above: Sydney Square, striking a contrast between old and new. In the left foreground is St Andrew's Cathedral with St Andrew's House behind it and, on the right, Sydney Town Hall in front of Town Hall House. Work on St Andrew's Cathedral was begun by James Hume in 1837, under Governor Bourke, and was continued by Edmund Blacket from 1846 to 1874. Blacket altered Hume's design and added twin towers at the cathedral's western end. A number of architects have contributed to Sydney Town Hall. Of its two main buildings, the original was that facing George Street, commenced in 1866 under architect J.H. Wilson. The main auditorium behind it (Centennial Hall) was completed by Charles Sapsford in 1888. The modern buildings of St Andrew's House and Town Hall House were completed in 1978, when the whole area was remodeled as Sydney Square — an attractive area where office workers can enjoy their lunches outside in the sun, meetings are held, and where occasional outdoor entertainment takes place.



Left: South Head Lighthouse was one of Greenway's first buildings (1816). Although the present lighthouse on South Head is not the original, having been rebuilt by Colonial Architect James Barnet in 1883, it is based on Greenway's design. This comprised a tower of a single column resting on a pavilion base. Under two matching domes either side, the lightkeeper's quarters were placed on the northern (or left) side from the road and a room for the Governor on the southern (right side). Greenway found an added practical use for his lighthouse — dissatisfied with the quality of labour and materials he found in the colony, he used the lighthouse as a training school for masons. The building's first keeper was Robert Watson, who had been quartermaster on the Sirius in the First Fleet, and after whom Watson's Bay was named.

Photograph by M.J. Antill

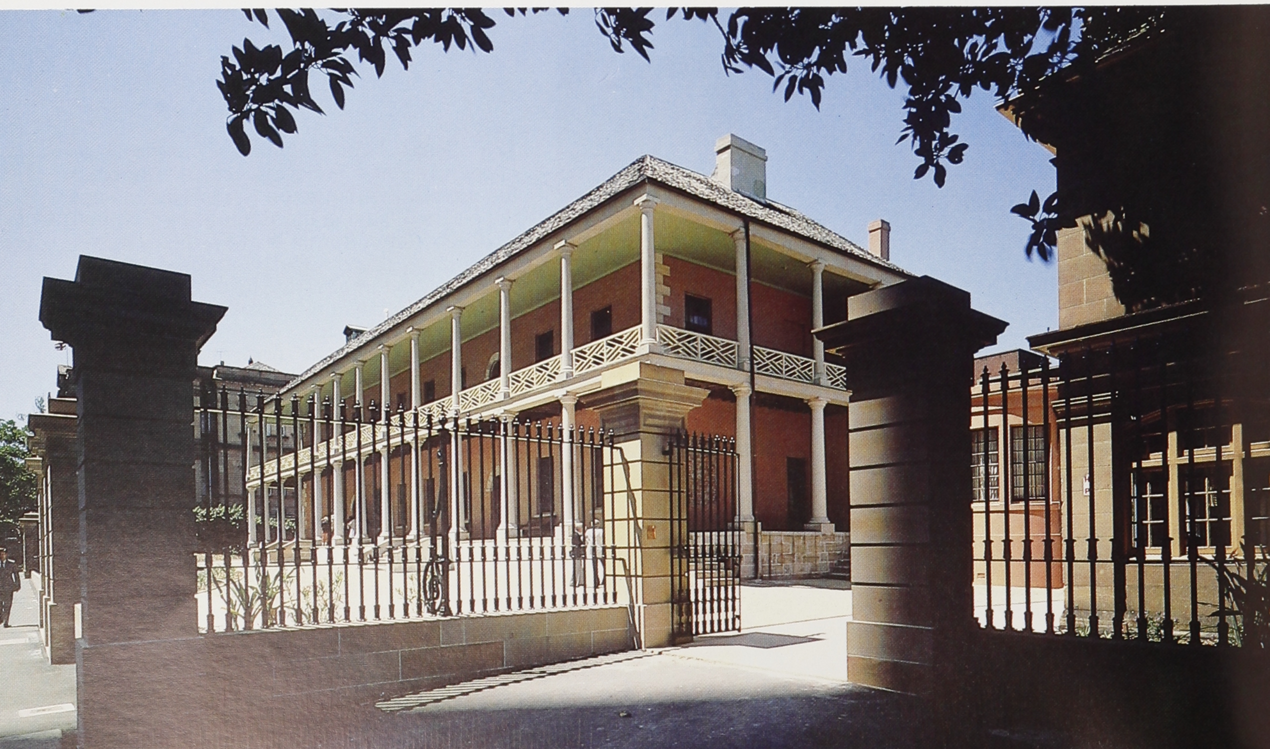


Promotion Australia

Above and adjacent page: Fountain area near Circular Quay, Sydney. This scene is taken from George Street, looking into Herald Square with Alfred Street continuing beyond. The fountain was commissioned in 1981 by John Fairfax and Sons Ltd., to celebrate the 150th anniversary of "The Sydney Morning Herald". Its sculptor was Stephen Walker and its foundation-stone was laid by the Lord Mayor of Sydney on 16 April 1981. It is entitled "The Tank Stream Fountain" because it was placed near the original outlet of the Tank Stream.

Below: The Mint building, Macquarie Street, Sydney. In their original form, the present Parliament House and the Mint building were the north and south wings respectively of the "Rum Hospital" commissioned by Governor Macquarie and built during the period 1811 to 1816. The Mint is therefore one of Australia's oldest and most historic buildings. Architecturally, it is two-storeyed and basically rectangular in shape, with pleasing colonnaded verandahs. It became the Australian branch of the the Royal Mint in 1851 after the discovery of gold in New South Wales. It was closed in 1927 and the Parliamentary Library and law courts were subsequently housed in it. In 1984, after extensive restoration by the Public Works Department, the Mint opened as a museum containing decorative arts, stamps and coins. It remains one of the few surviving Australian examples of Georgian neo-classic architecture.

N.S.W. Government Printer



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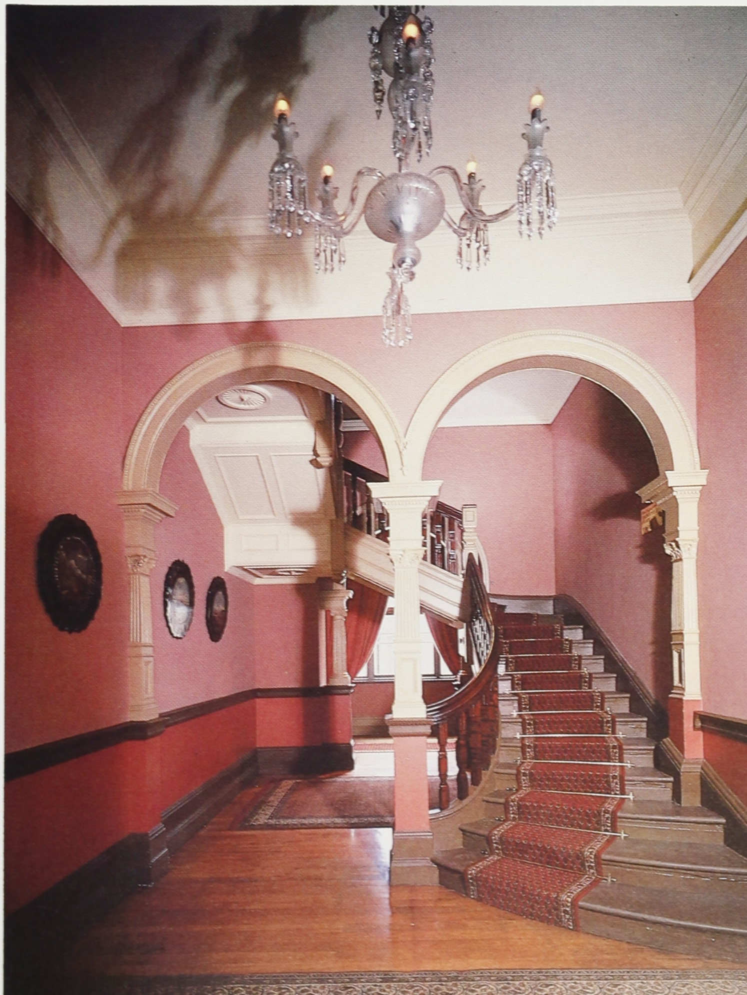
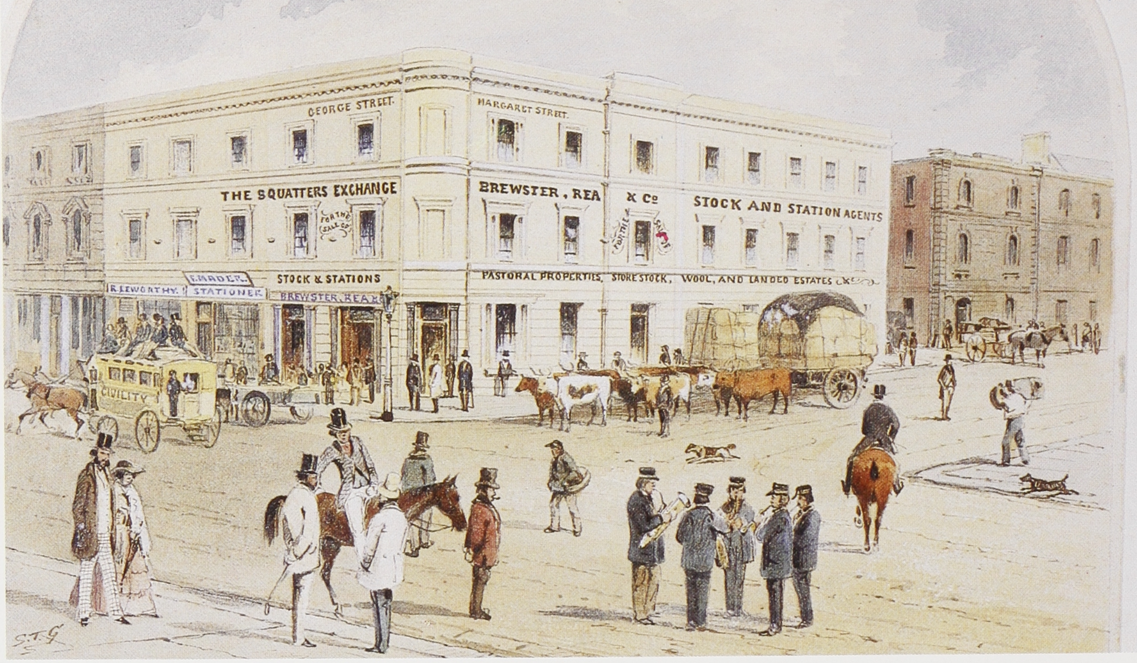
Right: Interior, Mint building, Macquarie Street, Sydney. Most of the interior of this historic building has been restored to its original state. Wallpapers, furnishings and Persian carpets are representative of those in use in the late 19th century, while scrape tests have been made to identify more accurately the original colours used for any decorative painted surfaces. There are two main staircases in the building, both of cedar - one installed in 1874 at the entrance, following collapse of most of the ground floor ceiling, and one built in 1893 and situated at the southern entrance.

N.S.W. Government Printer




GEORGE STREET.
MARGARET STREET.
THE SQUATTERS EXCHANGE
BREWSTER, REA & Co
STOCK AND STATION AGENTS
FOR THE SALE OF
STOCK & STATIONS
PASTORAL PROPERTIES, STORE STOCK, WOOL, AND LANDED ESTATES &c
R. LEWORTHY.
F. MADER. STATIONER
BREWSTER, REA &
CIVILITY
S.T.G.

Dixson Library, State Library of New South Wales

Above: "The Squatters' Exchange", watercolour by Samuel Thomas Gill about 1861. The painter resided in one of the upstairs rooms above F. Mader's Stationer's premises. Other tenants were John Brewster, Rea & Co., Stock and Station Agents and R. Leworthy, Tailor. On the left can be seen the omnibus coach named "Servility" and, on the right, two bullock-drawn drays laden with bales of wool. The Squatters' Exchange building was on the corner of George and Margaret Streets, Sydney.

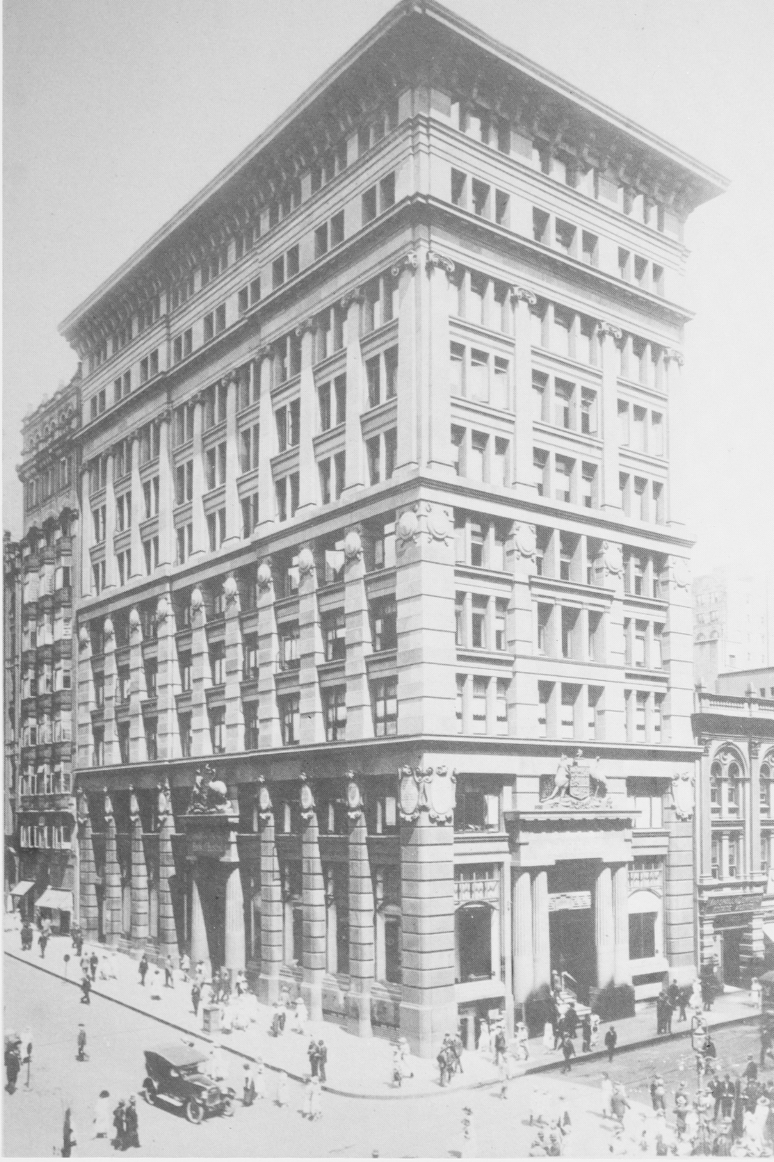
Below: Literary Institute, West Wyalong, photographed in 1973. Such institutes are to be found in many New South Wales country centres. They descended from the School of Arts movement which began in the 1830s. The objects and ideals of the Schools of Arts institution were copied from those of England. In "Sydney in 1848", Joseph Fowles described its goals thus: "The diffusion of useful knowledge, and the awakening a love of Study, by means of a Library, News, and Reading Rooms, Lectures, and Classes for instruction, accessible on terms within the reach of the less wealthy orders of Society". Members subscribed to use the library facilities. Their function has now been provided by the free public libraries maintained by local councils or regional libraries.

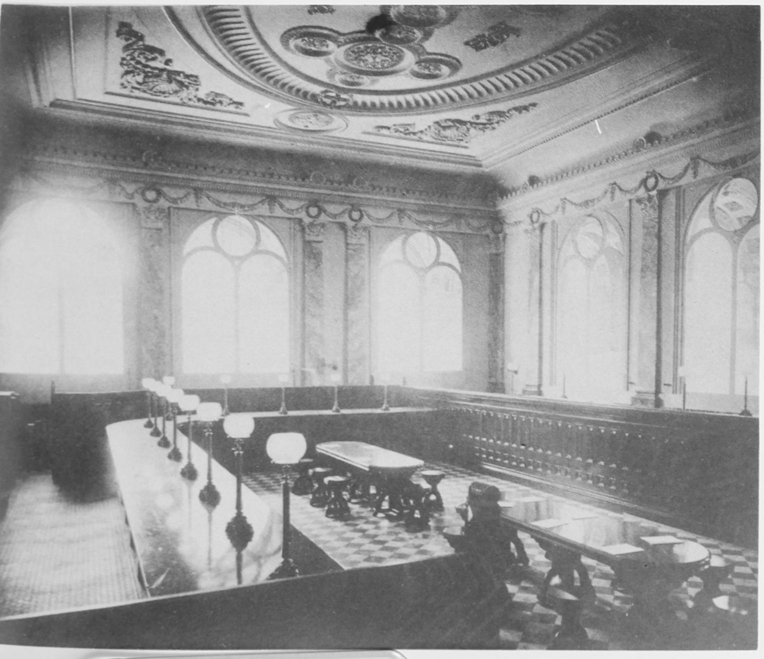
Promotion Australia

SAILORS & SOLDIERS
MEMORIAL
LITERARY INSTITUTE

Right: Commonwealth Bank, corner Pitt Street and Martin Place. The foundation stone of the head office of the Commonwealth Bank was laid in 1913 by Prime Minister Andrew Fisher and Governor Denison Miller. At first a trading bank, the building consists of two sections which were constructed at different times, but their separation is not easily discernible today. The first section opened in 1916 and the second in 1933. The original architects were John and Harold Kirkpatrick. The Commonwealth Bank of Australia celebrated its 75th anniversary on 15 July 1987.

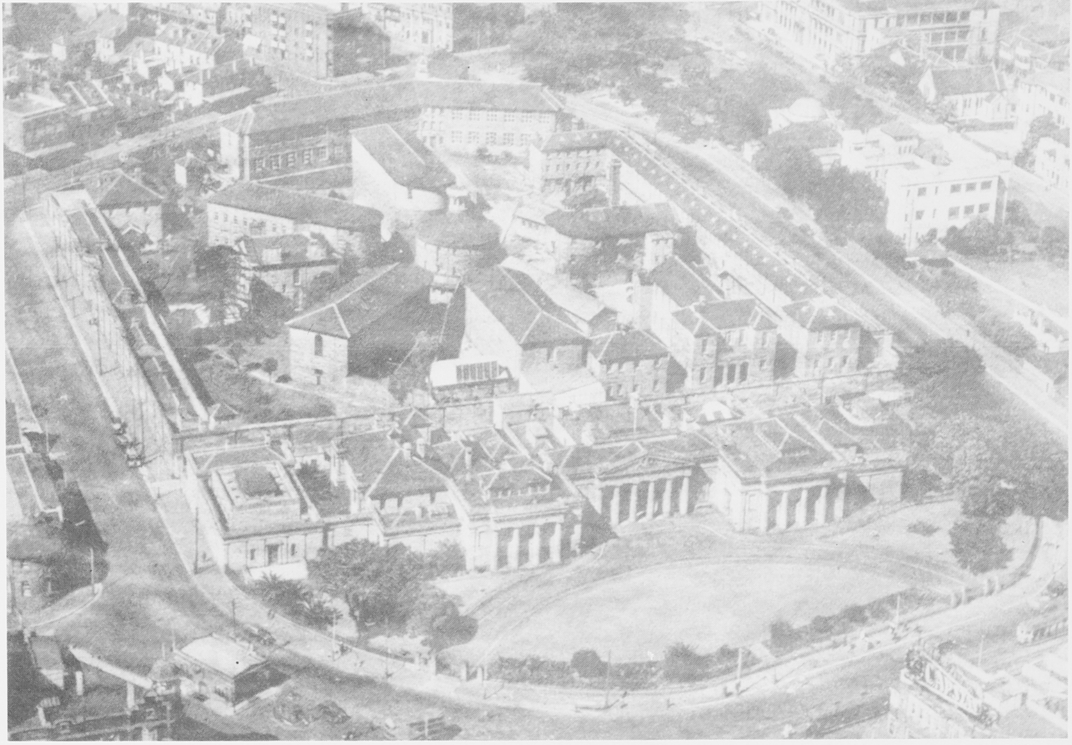
Mitchell Library, State Library of New South Wales





Left: Interior of a Savings Bank. The richness of the interior of many late 19th century banks is illustrated in this photograph. Ceilings and walls in this example are pleasingly ornate and their decorative circular motif is repeated in the circles and arches of the broad windows. Wall panelling and timber fittings are superbly finished.

Mitchell Library, State Library of New South Wales

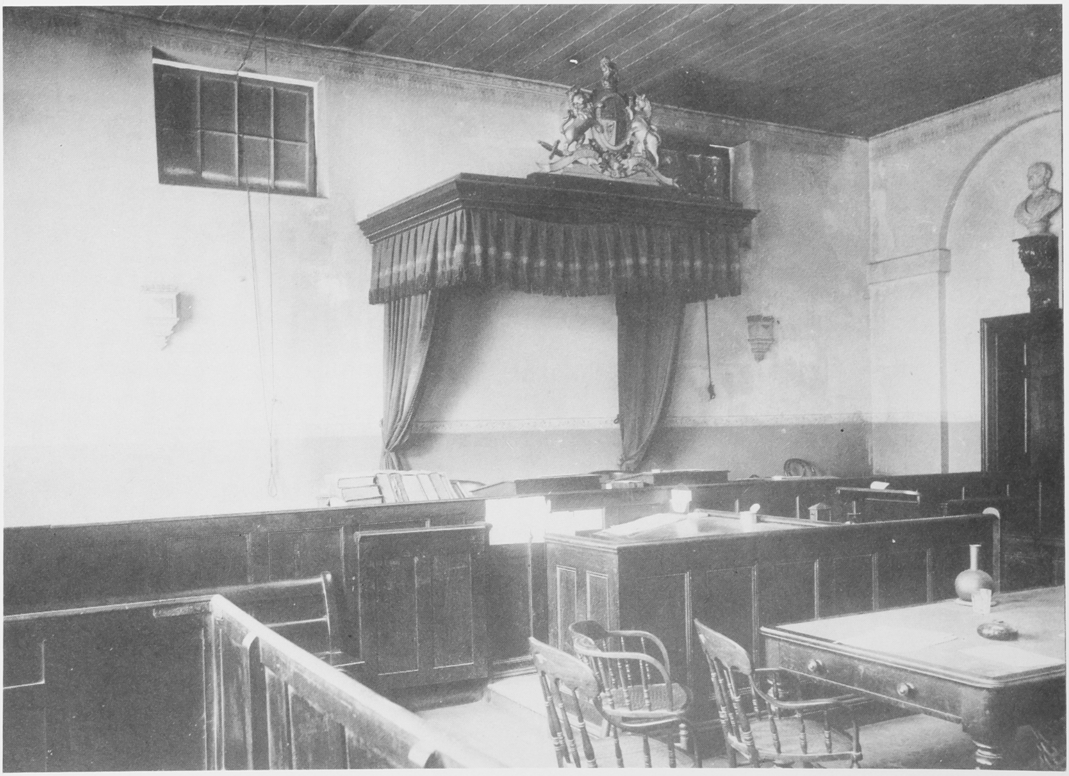


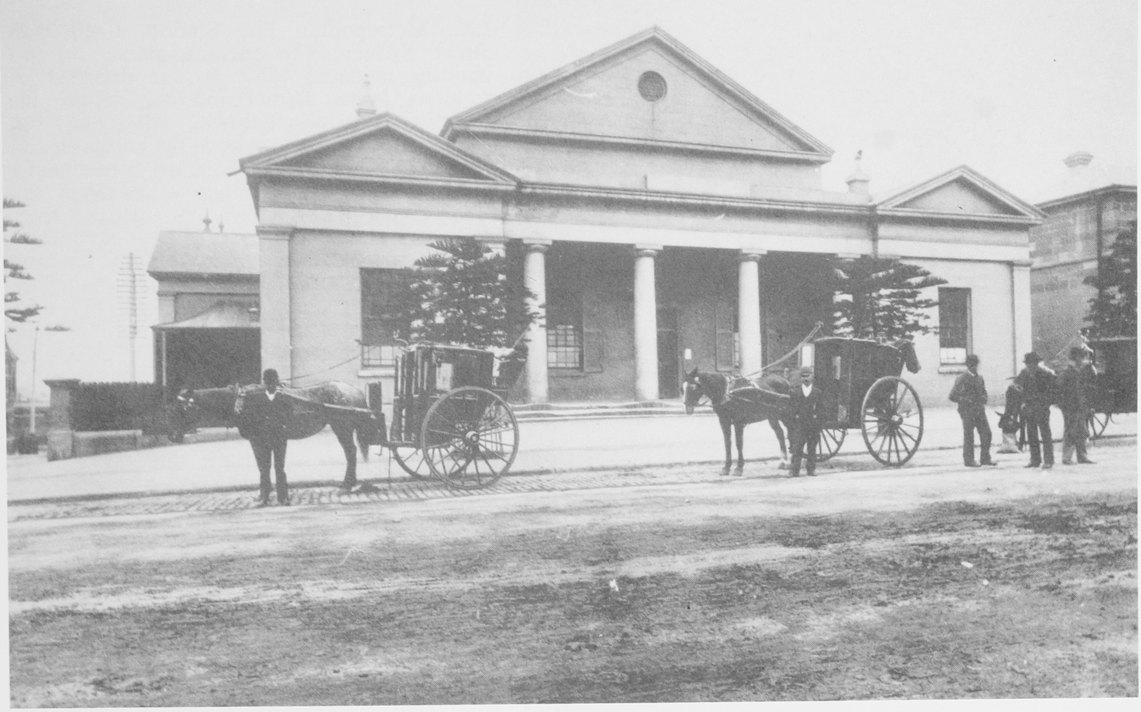
Archives Office of N.S.W. (Department of Services records)

Above: The outer walls of Darlinghurst Gaol were built from 1822 to 1824, under the supervision of Greenway's successor, S.L. Harris, but the gaol was not completed until 1835, by Colonial Architect Mortimer Lewis. Its plan resembled the spokes of a wheel radiating outwards from the chapel at its central point. The original Darlinghurst Court House was also designed by Lewis — it is the recessed section seen today between the two sandstone wings added in the 1880's. It is an example of the Greek Revival Style. In 1921, the Department of Education obtained the gaol buildings for adaptation as the East Sydney Technical College; the Courthouse is currently occupied by the High Court of Australia.

Below: Interior of Central Police Court, 1880. The heavy furniture, fittings and extensive timber work are typical of the late Victorian period, as are the heavy drapes surmounted by the Coat of Arms.

N.S.W. Government Printer



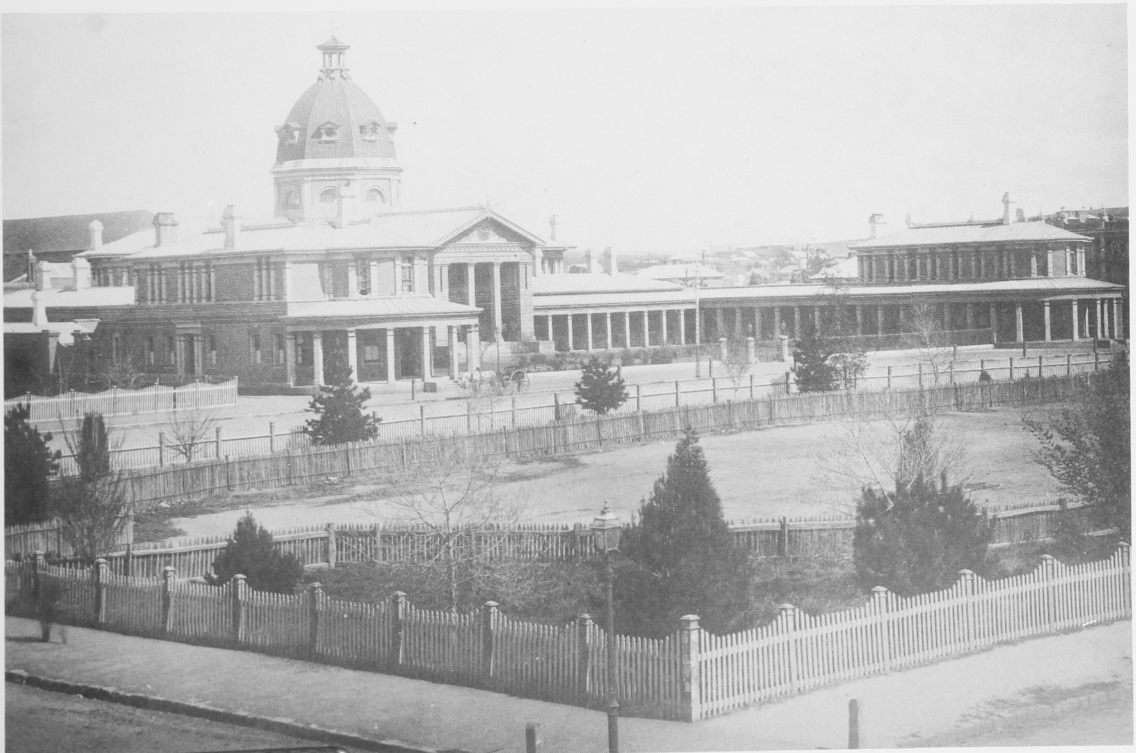


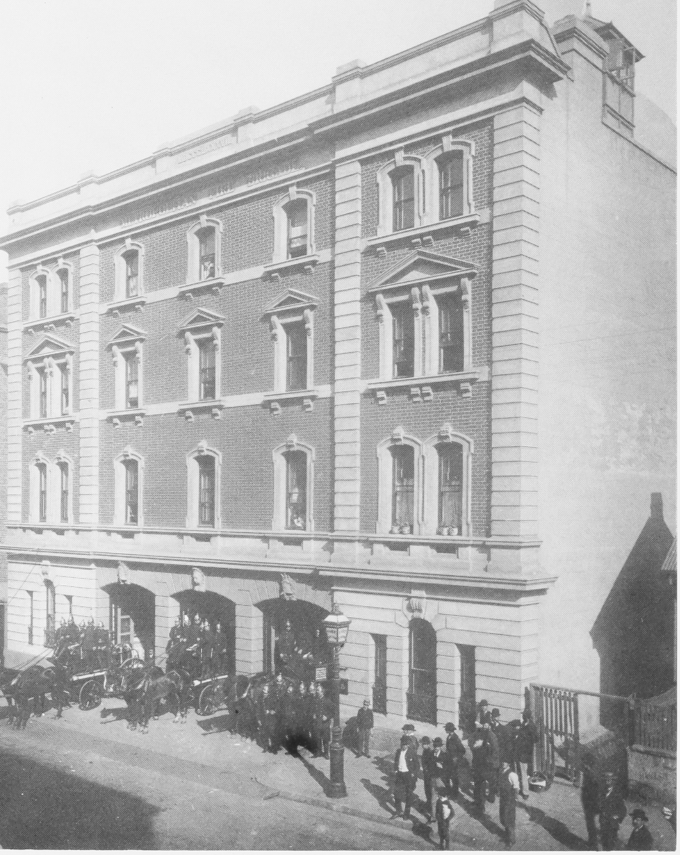
Archives Office of N.S.W. (N.S.W. Government Printer records)

Above: Newcastle Courthouse. Before demolition, the Courthouse stood on the present site of the Newcastle General Post Office, on the north-east corner of Hunter and Bolton Streets. In 1837, Mortimer Lewis prepared his 'Plans of Gaols, Courthouses and Public Offices'. He first built a large police office which he later altered by converting the centre section into a large, high courtroom. Unlike his Courthouse at Darlinghurst, Lewis rendered in simpler mould those he built at Newcastle and other country towns. Nevertheless, modern architects accuse his work of containing meaningless details (for example, the needless pilasters at the corners of the two gabled wings in the photo), and a confusion of various architectural styles.

Below: Public buildings, Bathurst, 1892. The complex of buildings featured in this photo consists of a central block, the Bathurst Courthouse, flanked by two wings intended as Post Office and Telegraph Office (lefthand wing not shown). These three buildings are united by means of a colonnade of Doric columns. The clock and bell turret were added to the Courthouse after 1890. The buildings were designed by James Barnet, Government Architect, and built from 1878 to 1880. They are Victorian Renaissance in style and illustrate well the increased interest in public building in the last half of the Victorian era.

N.S.W. Government Printer



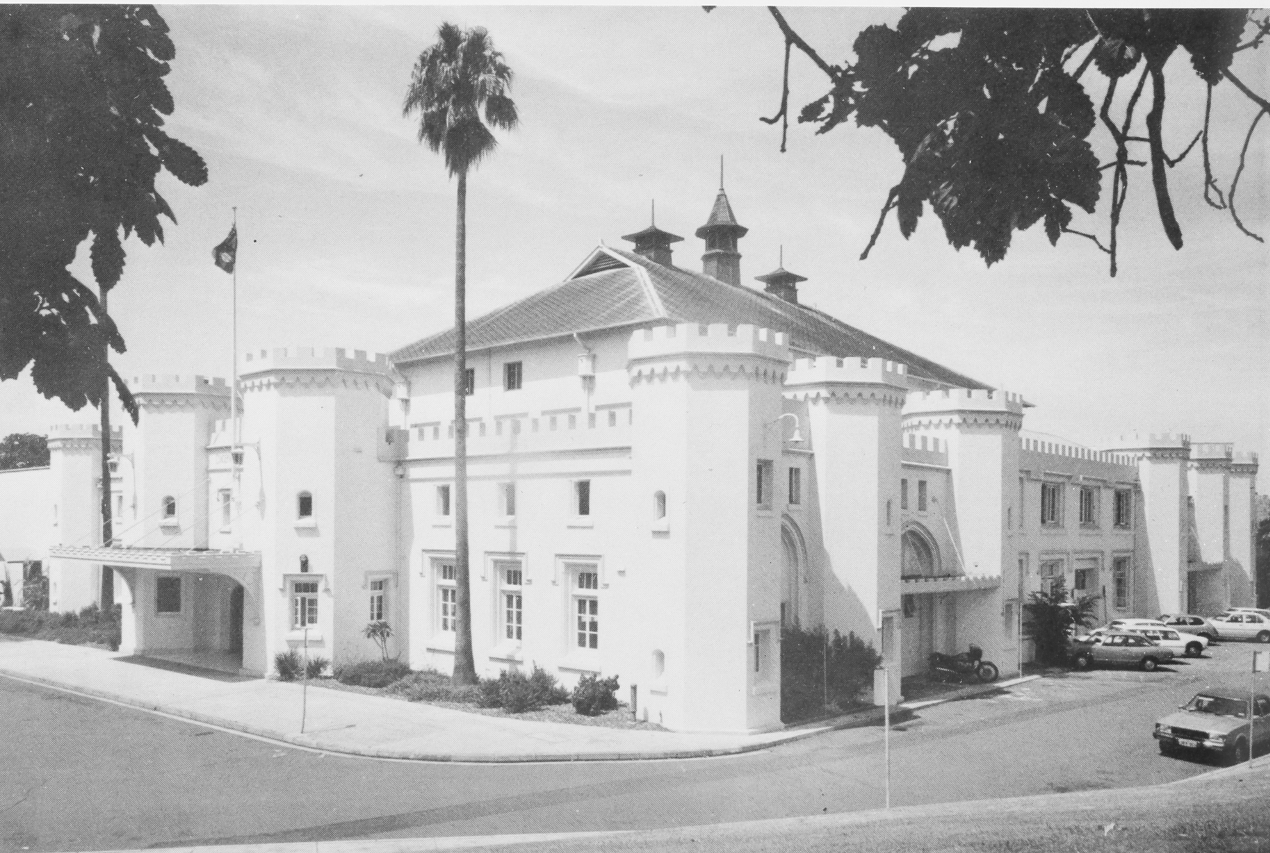


Left: Metropolitan Fire Station, Castlereagh Street, Sydney. The opening plaque on this building is dated 1887. It was designed by architect James Barnet and built under the supervision of John Baldwin, with stone from the Pyrmont quarries. Above the entrances can be seen carvings of Queen Victoria's head and a symbolic fireman with axe. The steam fire engines, pulled by horses, can also be seen. There were 46 rooms for 24-hour accommodation and general work, and stables at the back for the horses. At the top righthand corner of the building can be seen "the pigeon-box" — a watchtower from which a magnificent view of Sydney could be obtained.

N.S.W. Government Printer

Below: Conservatorium of Music, Sydney. In 1817, Governor Macquarie directed Francis Greenway to design a fort (Fort Macquarie on Bennelong Point) and a set of stables and offices for his horses, carriages and attendant servants. The fort and stables were to be built before the anticipated new Government House which, however, was never to eventuate. Greenway followed Macquarie's instructions to employ the newly fashionable "castellated" medieval mode of architecture for these constructions, but he was never at ease with its pointed arches, battlements and general Gothic style. In the stables' inner courtyard, he was to relapse into his favoured classical, more direct method of design. In 1914, the stables became the Conservatorium of Music and, in 1915, the courtyard was roofed over to become a concert hall.

N.S.W. Government Printer



Classification of Trading Bank Advances

The following classification of trading bank advances outstanding in New South Wales and Australia has been compiled by the Reserve Bank from returns supplied by the major trading banks.

Major Trading Banks: Classification of Advances *(a)* Outstanding, New South Wales and Australia (*Source*: Reserve Bank)
($ million)

	Advances (a) outstanding on second Wednesday in July in —			
	New South Wales		*Australia (b)*	
Classification	*1985*	*1986*	*1985*	*1986*
Resident borrowers —				
Business advances —				
Agriculture, Forestry, Fishing and Hunting	1,473	1,638	4,073	4,496
Agriculture	1,446	1,604	3,970	4,360
Other	27	34	103	136
Mining	96	152	558	410
Manufacturing	1,265	1,197	3,175	3,132
Construction	598	585	1,399	1,364
Retail Trade	950	1,029	2,340	2,267
Transport and Storage	281	342	722	935
Finance, Investment and Insurance	1,160	895	2,653	2,428
Finance	574	352	1,294	1,146
Other	585	543	1,359	1,282
Property and Business Services	582	798	1,313	1,710
Recreation, Personal and Other Services	470	252	1,070	1,249
Other Industries	644	749	1,846	2,312
Total business advances (c)	*7,945*	*8,387*	*20,224*	*21,851*
Personal advances	5,086	5,543	13,861	15,423
Total resident borrowers	**13,031**	**13,930**	**34,084**	**37,274**
Non-resident borrowers	**13,043**	**13,945**	**34,113**	**37,488**

(a) Loans (excluding loans to authorised dealers in the short-term money market), advances, and bills discounted. Includes term loans. *(b)* Includes Australian External Territories. *(c)* Figures include advances to local and semi-government authorities (including government business undertakings) which amount to $277m and $992m in 1986 in N.S.W. and Australia respectively. Advances to Commonwealth and State Governments are excluded.

Savings Banks

Savings bank facilities in New South Wales are provided by nine banks.

On 1 August 1984, restrictions on deposits relating to the payment of interest, maturities and sources of funds, were removed and savings banks were permitted to offer cheque accounts.

As at 30 June 1986, savings bank business was transacted in New South Wales at 1,796 branches of the savings banks and at numerous post offices and other agencies.

Particulars of the deposits held by savings banks in New South Wales are shown in the next table.

Savings Banks: Deposits in New South Wales

Year ended 30 June	*Operative accounts at end of year(a) ('000)*	*Transactions during year ($m)*			*Depositors' balances at end of year ($m)*	*Depositors' balances per head of population (c) ($)*
		Deposits (b)	*Withdrawals (b)*	*Interest added*		
			New South Wales			
1981	6,946	15,124	15,072	358	6,534	1,248
1982	7,059	17,370	17,463	448	6,889	1,298
1983	7,161	21,155	20,322	582	8,304	r1,543
1984	6,822	24,053	23,522	697	9,532	r1,751
1985	7,967	27,944	27,931	777	12,242	r2,223
1986	8,121	38,931	39,291	1,069	12,945	2,352
1987	9,140	52,310	50,894	1,413	17,363	3,111

(a) Excludes accounts at school savings bank agencies. *(b)* Includes interbranch transfers for those banks which operate in more than one State. *(c)* Estimated resident population.

Interest rates on deposits lodged with, and loans made by, savings banks are shown later in this chapter in the division "Interest Rates".

State Bank of New South Wales

The State Bank of New South Wales is constituted under the State Bank Act 1981 and is required to maintain 12 per cent of its Australian currency assets (less such amount as may be approved by the Treasurer) in prime assets. With respect to its banking business conducted within the State, the Bank is not subject to the Banking Act.

As well as performing general banking business, the Bank conducts government agency business.

For further details on the State Bank of New South Wales refer to the 1986 issue of the N.S.W. Year Book.

Commonwealth Development Bank

The Commonwealth Development Bank was constituted under the *Commonwealth Banks Act 1959*.

The main function of the Development Bank is to provide supplementary finance to that provided by a borrower's own bank, to primary producers and to persons seeking to establish or develop business undertakings (particularly small undertakings) in cases where the granting of assistance is considered desirable and finance would not otherwise be available on reasonable and suitable terms and conditions.

Australian Resources Development Bank

The Australian Resources Development Bank, founded in 1967, is wholly owned by the four major trading banks. It provides finance (by way of direct loans or equity investment, or by refinancing loans made by trading banks) to enterprises to assist them to participate in the development of Australia's natural resources.

OVERSEAS EXCHANGE RATES

On 9 December 1983 the system whereby the Reserve Bank set the daily exchange rate was abolished, and with effect from 12 December 1983 the Australian dollar was floated. Under these arrangements exchange rates are determined by the forces of supply and demand in the foreign exchange market. Banks and non-bank foreign exchange dealers are free to deal with their customers in currencies at mutually agreed rates.

Exchange Controls

Concurrent with the floating of the Australian dollar, virtually all of the exchange controls that were administered by the Reserve Bank on behalf of the Australian Government since 1939 were abolished. The Banking (Foreign Exchange) Regulations are still in force, and the purchase and sale of foreign currency in Australia must occur through foreign exchange dealers, authorised by the Reserve Bank of Australia to undertake such transactions. Approval from the Reserve Bank is required for the taking out of Australia by a traveller of more then $5,000 in Australian notes and coin and the sending out from Australia of notes and coins of any amount.

NON-BANK FINANCIAL INSTITUTIONS

FINANCIAL CORPORATIONS ACT

The *Financial Corporations Act 1974* requires a wide range of financial corporations, whose assets exceed $1.0m, to register with the Reserve Bank and to provide statistical information. Part IV of the Act provides a framework within which regulations could be made conferring on the Reserve Bank certain powers which, with the Federal Treasurer's approval, it could exercise over activities of financial corporations. The controls relate to asset ratios, interest rates, and lending policies; different controls may apply to different categories of corporations but, with the exception of building societies' interest rates (these may differ as between States), any control must apply equally to all corporations in a given category.

As from June 1984, the Australian Bureau of Statistics introduced a series of four publications to replace *Financial Corporation Statistics, Australia* (Catalogue No. 5617.0). The publications are compiled from statements furnished under the *Financial Corporation Act 1974*. *Building Societies, Australia* (Catalogue No. 5637.0); *Authorised Dealers and Money Market Corporations, Australia* (5638.0); *Finance Companies (Financial Corporation Act), Australia* (5639.0); *Other Financial Corporations, Australia* (5640.0).

CO-OPERATIVE SOCIETIES

The laws relating to co-operation in New South Wales are embodied in the Co-operation Act 1923, the Permanent Building Societies Act 1967 and the Credit Union Act 1969. In terms of these Acts, co-operative societies may engage in all forms of activity except insurance (unless specially authorised by the Governor) and banking.

Societies are corporate bodies with limited liability, except that a rural credit society may be formed with unlimited liability. Provision is made to safeguard the funds and financial interests of the societies. Powers of supervision are vested in the Registrar of Co-operative Societies.

Co-operative Building Societies

There are three main groups of co-operative building societies operating in New South Wales — permanent type societies (registered under the Permanent Building Societies Act, 1967) including non-terminating societies (registered under the Building and Co-operative Societies Act 1901, or the Co-operation Act 1923); Starr-Bowkett societies; and co-operative housing societies. Although their structure and methods of operation differ, all societies provide finance for the erection or purchase of homes.

Permanent Building Societies

The Permanent Building Societies Act 1967 provides, *inter alia*, that the funds of a *permanent building society* must not be less than $2.0m (including $1.0m paid-up share capital) and that the society must hold liquid assets not less than 10 per cent of the aggregate of its paid-up capital and deposits. Permanent and non-terminating societies obtain funds from the general public (mainly by the issue of shares which give the purchaser the right, under certain conditions, to withdraw capital on short notice) and from lending institutions (by way of advances or deposits). In May 1982, the Permanent Building Societies Act and the Trustee Act, 1925 were amended to provide that subscription of share capital in, deposit with, or loan of money to, certain ministerially approved building societies, registered under the Act, would have the status of an authorised trustee investment. Borrowers from the societies are required to take up shares in the societies (usually for a relatively small amount), and they obtain loans on credit foncier terms for periods generally ranging from 10 to 25 years. The value of lending commitments to individuals for the constructions and purchase of established dwellings totalled $1,559 million in 1985-86. Detailed statistics on the operations generally of permanent building societies are available in the monthly bulletin *Housing Finance for Owner Occupation* (Catalogue No. 5609.0) and annual bulletin *Permanent Building Societies* (5632.0).

Starr-Bowkett Building Societies

In *Starr-Bowkett building societies*, members pay regular subscriptions on the number of shares corresponding to the advance they wish to obtain. The funds thus made available to a society are used to make advances to members by ballot (interest-free advances) or by auction (the prospective borrower bidding a rate of interest). After receiving an advance, a member makes regular repayments of principal and (where applicable) pays interest, and continues to pay his share subscriptions. When an advance has been made to all members in a society, the process of winding-up commences, and share subscriptions are repaid to members when repayments of advances are received.

Co-operative Housing Societies

Co-operative housing societies obtained funds from trading and savings banks, life and fire insurance companies and other financial institutions. Government loan moneys are also made available (through the Home Purchase Assistance Account) under arrangements between the Commonwealth and State Governments for the provision of finance for housing. The repayment of loans obtained from private sources by most of these societies is guaranteed by the State Government. These societies make housing loans to low and moderate income earners.

Co-operative housing societies financed by banks and insurance companies now operate on a credit foncier basis. A member who borrows on credit foncier terms makes repayments of principal and interest by monthly instalments; interest is calculated on the reducing monthly balance. The maximum loan that may be advanced to a member by a co-operative housing society is currently $60,000. In no case, may the loan exceed 95 per cent of the accepted valuation of the property offered as security.

The rate of interest on advances varies according to the source of the society's funds. At September 1986, the maximum rate which can be charged by a lender of a new advance protected by Government guarantee is 15.00 per cent per annum. Repayments are recalculated if the interest rate is varied.

On new funds made available from the Home Purchase Assistance Account or through special State allocations or the Rental Bond Board, the commencing interest rate on loans is 11.25 per cent per annum. Provision is made for part of the interest charged on loans to be rebated in the case of low income borrowers. Loan repayments are geared to family income. No borrower is required to pay more than 27 per cent of the family income in loan repayments.

Advances made by co-operative housing societies in New South Wales during 1985-86 amounted to $153m.

Particulars of the co-operative building societies are summarised in the next table. The figures for a particular year relate to societies which were in active existence at the end of the year, and exclude those societies which were terminated during the year.

Further details on Co-operative Housing Societies are available in the annual publication *Co-operative Societies Assets, Liabilities, Income and Expenditure, Australia* (Catalogue No. 5633.0); *Permanent Building Societies* (Catalogue No. 5632.0) and the monthly bulletin *Housing Finance For Owner Occupation* (5609.0).

Co-operative Building Societies *(a)*, N.S.W.

Particulars	*At 30 June* *1985*	*1986*
Permanent Building Societies		
Number of Societies	**15**	**14**
Liabilities ($'000)		
Share Capital		
Non-Withdrawable shares	53,223	3,223
Withdrawable shares	5,278,393	5,605,157
Reserves	380,856	308,806
Borrowing from residents		
Banks	62,314	27,142
Secured borrowings	17,880	9,497
Unsecured borrowings	2,519,695	1,256,117
Borrowing from non-residents	3,438	50,384
Other Liabilities	72,865	51,578
Total, Liabilities	**8,388,664**	**7,311,904**
Financial Assets ($'000)		
Cash on Hand	24,837	23,162
Deposits with —		
Banks	400,588	454,413
Other	93,456	59,310
Bills, bonds and Securities	1,849,359	1,172,930
Loans outstanding	5,688,854	5,373,738
Physical Assets	305,306	208,742
Other Assets	26,264	19,609
Total Assets	**8,388,664**	**7,311,904**
Terminating Building Societies		
Number of societies	**233**	**224**
Liabilities ($'000)		
Amounts paid on ordinary shares *(b)*	52	49
Accumulated funds	4,506	4,802
Loans from —		
Banks	118,906	118,881
Commonwealth/State Home Builders' Fund *(c)*	432,299	458,852
Others	396,227	425,856
Other liabilities	3,021	2,921
Total, liabilities	**954,201**	**1,011,362**
Assets ($'000)		
Amount owing on loans *(d)*	948,965	1,006,071
Cash and current accounts	2,791	2,673
Deposits with —		
Banks	816	1,023
Others	678	659
Other assets	953	936
Total, assets	**954,201**	**1,011,362**
Net excess of income over expenditure	**889**	**569**

(a) Starr-Bowkett societies that operate on either a permanent or terminating basis are incorporated in the appropriate section. *(b)* For actuarial co-operative housing societies, members' subscriptions have been offset against amount owing on loans. *(c)* Refers to loans made to societies through the Commonwealth/State Housing Agreement. *(d)* Net of borrowing members' subscriptions for actuarial type societies.

Interest rates on deposits and loans made by building societies are shown later in this chapter in the division "Interest Rates".

Credit Unions

Since 1969 the affairs of credit unions in New South Wales have been conducted in accordance with the Credit Union Act, 1969.

Credit unions utilise members' funds (share capital and deposits) and (to a limited extent) moneys borrowed from non-members to make loans to members for a wide variety of purposes. Profits may be distributed as dividends on shares or rebates of interest paid by borrowing members.

In 1978 a Credit Union Savings Reserve Fund was established to protect the interests of all members of credit unions. Credit unions are required to keep on deposit with the Fund up to three quarters of one per cent of their share capital and deposits. The Fund may finance any credit union which encounters financial difficulties. At 31 December 1985, the Fund embraced 208 credit unions and contributions totalled $12.8m.

As a result of a joint investigation by the ABS, the Commonwealth Treasury and the Reserve Bank aimed at rationalisation of Financial Statistics, a new form for credit co-operatives was introduced for completion for the year 1984-85. The form incorporated new data items and changes to data item definitions and descriptions, and excluded some data items previously reported. The effect on comparison of the statistics presented with those for earlier periods is negligible.

Details of the operations of credit co-operatives (previously credit unions) during the last six years are shown in the following table.

Credit Co-operatives: New South Wales

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
Number of Credit Cooperatives	**285**	**267**	**236**	**229**	**218**	**207**
Number of members	**701,741**	**728,362**	**750,187**	**799,015**	**869,743**	**942,383**
	Liabilities and assets ($'000)					
Liabilities —						
Paid up share capital	5,313	5,573	5,689	6,031	6,487	6,991
Reserves	46,129	61,071	76,110	98,519	123,882	147,246
Deposits —						
Current accounts	2,558	2,514	2,969	6,907	4,253	4,015
Other	840,227	969,121	1,253,101	1,473,783	1,765,087	2,146,789
Other borrowings	41,646	41,381	18,064	36,218	44,467	37,462
Other liabilities	11,265	11,312	12,593	15,894	19,872	22,360
Total liabilities	**947,137**	**1,090,973**	**1,368,526**	**1,637,351**	**1,964,064**	**2,364,862**
Assets —						
Loans outstanding	799,582	899,135	1,037,338	1,306,416	1,607,079	1,911,870
Deposits with —						
Banks	28,312	30,895	76,405	51,381	51,416	57,612
Credit union leagues or associations	60,376	84,600	144,510	132,524	145,619	200,740
Other	16,245	16,098	27,316	29,343	17,857	16,613
Bills, bonds, and other securities	14,378	23,637	35,729	59,090	57,835	77,252
Fixed assets	19,080	24,922	33,100	41,931	55,072	65,407
Other assets	9,166	11,685	14,128	16,664	29,169	35,367
Total assets	**947,137**	**1,090,973**	**1,368,526**	**1,637,351**	**1,964,046**	**2,364,862**
Net excess of income over expenditure	**11,205**	**15,063**	**15,451**	**21,167**	**25,301**	**23,974**

Interest rates paid on deposits in credit unions are shown later in this chapter in the division "Interest Rates".

SHORT-TERM MONEY MARKET

Authorised Money Market Dealers

The short-term money market in Australia was given official status in February 1959, when the Reserve Bank agreed to act as lender of last resort to companies authorised by the Bank to act as dealers in the market. Nine companies have since been authorised by the Bank as dealers in the market.

The funds lodged with the dealers are invested in authorised "money market securities" — for the most part, they are held in Commonwealth Government securities but limited amounts are held in a group of assets comprising approved securities of public authorities, banks' certificates of deposit and bank accepted or endorsed commercial bills; a small part may be held in such other assets as the dealers may choose.

Money Market Corporations

The money market corporations (some of which are referred to as "merchant banks") raise most of their funds by short-term borrowings, especially by large scale borrowings from the corporate business sector. Although banks are a relatively small source of funds, they are significant in financing short-term cash deficits, either under standby arrangements or in response to competitive bidding by the corporations.

The corporations engage in a wide variety of financing including liquidity placements, business loans, and investments in commercial bills, promissory notes, and in Commonwealth and other government securities. To meet their liquidity needs, money market corporations rely on a mixture of reasonably matching maturities of assets and liabilities, ability to liquefy assets (e.g. by rediscounting part of their bill portfolio or by exercising options to convert loans to saleable bills), ability to attract replacement funds and, generally as a last resort, calling on standby lines of credit. Although specialising in short-term financing, money market corporations provide some longer-term credit. This is commonly provided on a roll-over basis, with rates of interest subject to renegotiation from time to time and with options to convert loans to bills. Their specialisation in short-term financing enables them to change rapidly the nature of their activities and size of their balance sheets.

Most money market corporations also provide bill acceptance facilities, arrange both short and long-term loans, underwrite debt and equity capital issues, and provide financial advice including strategic planning of corporate takeovers. Since June 1984, a number of money market corporations have been granted foreign exchange dealing authority.

PASTORAL FINANCE COMPANIES

Pastoral finance companies are based largely on woolbroking, most of the large companies being members of the National Council of Wool Selling Brokers. Provision of finance to rural clients is, to a large extent, ancillary to other business with them and is mainly for working capital requirements.

FINANCE COMPANIES

Subject to certain qualifications, a finance company is defined as an incorporated company which singularly, or as a group of incorporated companies related under Section 7 of the Companies Act 1981 are mainly engaged in providing to the general public (businesses as well as persons in their private capacity) any of the following types of credit facilities: instalment credit for retail sales; personal loans; wholesale finance; factoring; other consumer and commercial loans; finance leasing of business plant and equipment; and bills of exchange transactions. A company is mainly engaged in providing these types of credit facilities if 50 per cent or more of its assets consist of balances outstanding with respect to such facilities, or if 50 per cent or more of its income is derived from such facilities.

Detailed information on the transaction and financial structure of finance companies is available from the annual publication *Finance Companies Assets, Liabilities, Income and Expenditure, Australia* (Catalogue No. 5616.0).

Details of finance lease receivables and loans outstanding by finance companies for the last three years are shown in the next table. Leasing of business plant excludes leverage lease receivables. For further details of financial statistics refer to the publication *Finance Companies, Australia* (Catalogue No. 5639.0).

Finance Companies: Finance Lease Receivables and Loan Outstandings in N.S.W. ($'m)

	Loan outstanding at end of period					
		Individuals				
Period ended 30 June	*Finance lease receivables (a)*	*Housing*	*Other*	*Total*	*Other loans and advances (b)*	*Total loan outstandings (b)*
1984	2,501.9	643.4	1,643.7	2,287.1	2,651.3	4,938.4
1985	2,910.1	624.1	1,778.4	2,402.4	3,085.5	5,487.9
1986	2,783.0	609.4	1,768.7	2,378.1	3,710.9	6,089.0

(a) Excludes leveraged lease receivables. *(b)* Excludes related corporations.

LIFE INSURANCE

Life insurance business throughout Australia is regulated under the *Life Insurance Act 1945*. The New South Wales, Queensland and South Australian government insurance offices also transact life insurance business but are not subject to this Act. The Act is administered, subject to the Federal Treasurer's direction, by a Life Insurance Commissioner.

In recent years the Life Insurance Commissioner has rationalised his statistical collections. Since 1982, actual data have been collected at the Australian level only.

Government Insurance Office of New South Wales

The Government Insurance Office of New South Wales was established in 1926 to undertake workers' compensation insurance. It was incorporated in 1942 when it was empowered to carry on all classes of insurance business, including life insurance.

Particulars of the operations of the Life Insurance Division of the Government Insurance Office in recent years are given in the next table.

Government Insurance Office of New South Wales: Life Insurance Division ($'000)

	Revenue		*Expenditure*			
Year ended 30 June	*Premiums less reinsurances (a)*	*Investment income*	*Claims*	*Surrenders (a)*	*Expenses of management (b)*	*Income tax (c)*
1981	36,225	13,883	8,624	7,252	3,024	3,302
1982	45,308	18,069	8,890	11,767	4,413	3,670
1983	49,810	26,690	10,268	14,776	5,635	6,824
1984	87,827	38,555	9,846	16,778	6,859	9,174
1985	168,684	74,716	13,587	27,826	9,026	12,045
1986	288,676	81,840	12,343	43,988	14,277	14,135

(a) Excludes values allowed on conversion to Investment Linked Policies ($2,138,000 in Premiums etc. received and paid Surrenders respectively in 1985-86). *(b)* Includes commission and agency expenses. *(c)* The Government Insurance Office is not subject to Federal Income Tax but it makes a contribution equivalent to income tax to the N.S.W. Treasurer.

PENSION AND SUPERANNUATION SCHEMES

Private Superannuation Schemes

The Australian Bureau of Statistics conducts surveys of selected private pension funds and the results of these surveys are shown in the Australian Year Book. These data are not available for individual States.

Government Pension Schemes

The Commonwealth and State Governments have established pension or superannuation schemes for their employees. These schemes are operated through funds to which the employees make contributions. The Governments either contribute to the fund, or meet the employer liability from Consolidated Revenue when benefits become payable. Comments are provided on some of the funds.

Commonwealth Superannuation Scheme

On 1 July 1976 a superannuation scheme was introduced, in terms of the *Superannuation Act 1976* to cover, as far as possible, all Commonwealth Government employees in the one scheme. The legislation provided that contributors to the old superannuation fund (including those attached to the Provident Account) were to be transferred (under certain special conditions) to the new scheme. (Details of the old scheme were shown on page 215 in Year Book No. 64, 1976.)

Under the scheme an employee contributes to the superannuation fund with a basic contribution of 5 per cent of salary, and has an option to supplement this contribution by up to a further 5 per cent of salary. Contribution to the scheme is generally compulsory. Further details of this scheme are contained in the 1986 issue of the N.S.W. Year Book.

The government-financed part of pensions paid under the new scheme is adjusted each July in accordance with any upward movements in the Consumer Price Index during the four quarters to March of that year.

Defence Forces Retirement Benefits

A new scheme, effective from 1 October 1972, was implemented by the *Defence Force Retirement and Death Benefits Act 1973*. Under this scheme contributions are set at a rate of 5.5 per cent of the member's annual rate of pay. Contribution to the scheme is compulsory and contributions are payable to and benefits payable by the Commonwealth Government. Retirement pay is expressed as a percentage of final pay, dependent on the number of years served by the contributor (ranging from 30 per cent after 15 years to 76.50 per cent after 40 or more years). In addition to pensions payable to contributors, their widows, or their children, the scheme provides a number of extra benefits, such as provision for commutation of retirement pay, extension of reversionary benefits in certain circumstances to de facto widows and to illegitimate children, and extension of eligibility to widowers of female members. Pensions are adjusted annually in line with the movement in the Consumer Price Index.

New South Wales State Superannuation Fund

The State Superannuation Fund closed to new members from 1 July 1985. It is a superannuation scheme provided for certain employees of the New South Wales Public Service, the Teaching Service and statutory authorities which participate in the Scheme. The Scheme is generally compulsory, for eligible employees. There is a minimum medical standard for membership. Employee and employer contributions are related to the employee's unit entitlement, which is determined by the employee's salary. The cost of contributions for new pension units increases with the age at which they are taken up; the closer to retirement, the higher the rate at which new units must be paid for.

The Fund provides pension (based on the member's unit entitlement) on normal retirement at or after age 60 years (or 55 years in the case of a woman who elects to pay the higher contributions required) if the Fund member has accumulated at least 10 years service with one or more employers participating in the Scheme. Pension is also payable on early voluntary retirement, invalidity retirement and to widows (approximately two-thirds of the pension for which her husband contributed), widowers (subject to a dependency test) and children of deceased Fund members. Generally, most of a Fund pension may be commuted to a lump sum at age 55 years or on benefit emergence whichever is later. However, persons retired due to ill health cannot commute pension until they attain the age of 60 years. Pensions which emerged prior to 1 July 1985 cannot be commuted until age 60 years. Benefits are also payable on resignation, dismissal, discharge and retrenchment and there is provision to preserve benefits. Pensions are adjusted annually in line with the moment in the Consumer Price Index.

State Superannuation Fund, New South Wales *(a)*

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
	Income ($'000)					
Contributions —						
Employees	131,360	156,142	188,307	202,428	215,252	230,621
Employers	203,585	237,795	262,802	269,619	292,701	404,220
Investment interest	167,613	199,764	257,264	300,084	370,133	582,909
Other	140	307	329	377	302	347
Total income	**502,698**	**594,009**	**708,702**	**772,508**	**878,388**	**1,218,097**
	Expenditure ($'000)					
Pensions	139,486	156,533	177,916	205,865	224,218	249,001
Lump sum payments (retirement or death)*(b)*	96,006	128,221	164,852	154,697	178,694	359,879
Refunds of contributions and withdrawals benefits	16,599	20,343	17,234	20,172	24,686	30,770
Administration	4,307	5,292	5,940	r6,301	6,421	8,074
Other	r2,142	r2,347	r2,175	r2,734	2,664	3,068
Total expenditure *(c)*	**r258,540**	**r312,736**	**r368,117**	**r389,769**	**436,683**	**650,792**
	Contributors and pensions (Number)					
Contributors current	**115,195**	**117,310**	**118,162**	**118,327**	**119,391**	**115,269**
Pensions current	**22,565**	**23,613**	**24,879**	**26,246**	**27,629**	**28,729**

(a) Pensions payable to N.S.W. Judges and certain other State officers are drawn from the Consolidated Revenue Fund. *(b)* See text above table. *(c)* Excludes transfers to Reserves.

The Fund's accumulated funds at 30 June 1986 amounted to $4,174m; investments at that date were $4,101m (comprising government securities, $1,381m; company securities, $772m; secured loans, $324m; land and buildings, $1,162m; and miscellaneous, $462m).

New South Wales State Public Service Superannuation Fund

The State Public Service Superannuation Fund commenced on 1 July 1985 to cover the same class of employees who would have been eligible to contribute to the State Superannuation Fund prior to its closure. Membership of the Fund is voluntary. An employee may elect to contribute between 2 per cent and 9 per cent of salary. This rate may be varied from year to year. Members may apply for supplementary benefit cover which provides increased death and invalidity benefits. A minimum medical standard must be met to be eligible for supplementary benefit cover and a levy is payable for this additional cover.

The Fund provides a lump sum benefit on retirement, at or after age 55 years, invalidity, and death. Broadly speaking, benefits are in two parts. The first part consists of employee contributions plus interest. The second part is an employer-financed benefit based on "final salary", length of Fund membership and the member's contribution level from year to year. Benefits are also payable on resignation, discharge, dismissal or retrenchment. There were 3,150 contributors at 30 June 1986.

Police Superannuation Fund

Pensions for the police are paid from the Police Superannuation Fund, to which the police must contribute at the rate of 6 per cent of salary (4 per cent prior to 1981). The balance required to meet claims is appropriated annually from the Consolidated Revenue Fund. Police pensions are graduated according to length of service and the rate of salary at date of retirement. Particulars of income and expenditure of the Fund for the last six years are shown in the next table.

Police Superannuation Fund, New South Wales

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986(b)*
	Income ($'000)					
Contributions —						
Employees	6,880	11,626	12,612	13,673	15,556	11,813
Employers *(a)*	16,934	18,300	25,661	30,000	31,829	27,500
Other	9	10	10	15	12	—
Total income	**23,822**	**29,936**	**38,283**	**43,688**	**47,397**	**39,313**
	Expenditure ($'000)					
Pensions	22,264	27,706	35,791	40,909	45,009	36,674
Lump sum payments (retirement or death)	1,244	1,193	2,035	2,076	1,528	1,437
Refunds of contributions	716	837	579	550	904	936
Total expenditure	**24,224**	**29,736**	**38,405**	**43,535**	**47,397**	**39,047**
	Contributors and pensions (Number)					
Contributors current	**9,271**	**9,388**	**9,812**	**9,950**	**10,460**	**10,541**
Pensions current	**2,436**	**2,672**	**2,803**	**2,854**	**2,936**	**3,033**

(a) Paid by the State's Consolidated Fund. *(b)* Figures covers a 9 month period. Commencing in 1986, the Fund's financial year was approved to conclude on 31 March each year.

Public Authorities Superannuation Scheme

Following the amalgamation of the Local Government Superannuation and New South Wales Retirement Boards in April 1984, the Public Authorities Superannuation Board examined their respective superannuation schemes with a view to moving towards greater uniformity of superannuation provisions. On 30 April 1985, the Public Authorities Superannuation Act, 1985 was assented to, and 1 July 1985 was proclaimed as the date of commencement of the Public Authorities Superannuation Scheme.

This legislation provides for:

(a) establishment of the Public Authorities Superannuation Scheme to provide superannuation cover for employees contributing to schemes administered by the Board and employees who would otherwise have been covered by these schemes on and after 1 July 1985;

(b) closure of the Local Government Pension and New South Wales Retirement Funds on and from 30 June 1985;

(c) automatic transfer of all Local Government Pension and New South Wales Retirement Fund contributors to the new scheme with protection of existing rights; and

(d) conditions for the transfer of contributors from the other closed local government schemes and the Transport Retirement Fund (to be prescribed by regulation)

Contributors from the Local Government Pension Fund will obtain higher retirement benefits. For contributors from the Retirement Fund, the new scheme will provide comprehensive death and disablement benefits for the first time.

Coal and Oil-shale Mine Workers' Superannuation Fund

The Tribunal, established under the Coal and Oil Shale Mine Workers (Superannuation) Act 1941, administers Schemes for superannuation benefits and workers' compensation subsidies for persons engaged in the coal and oil shale mining industries.

The Superannuation Fund is financed by owner and worker contributions. Superannuation rates and benefits are indexed to the "Reference Rate" which is the weekly rate of wages prescribed for the classification of "Loaderman" under the New South Wales coal mining industry awards. From 4 November 1985 the "Reference Rate" was $364.

The Compensation Subsidy Fund is mainly financed by a levy on mine owners at 27 cents (45 cents in 1984-85) per week for each worker employed. From the Fund a Subsidy is provided, subject to certain conditions, to bring the amount paid under the Workers' Compensation Act 1926, to miners affected by dust, up to the maximum rate for full incapacity provided by the Act.

Coal and Oil-Shale Mine Workers' Superannuation Fund, New South Wales

	Year ended 30 June					
Particulars	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*
	Income ($'000)					
Contributions —						
Mine owners	18,967	23,922	25,960	24,912	25,565	27,702
Mine workers	6,308	7,994	8,666	8,309	8,530	9,247
Special *(a)*	13,900	17,543	19,039	18,268	18,752	20,322
Interest	1,659	3,192	4,506	4,850	5,851	6,180
Other income	24	3	21	12	3	598
Total income	**40,858**	**52,654**	**58,192**	**56,351**	**58,701**	**64,049**
	Expenditure ($'000)					
Pensions	15,025	16,023	16,121	14,910	13,951	13,079
Lump sum	21,536	22,808	35,856	35,632	38,973	38,833
Administration, etc.	641	969	1,460	2,175	1,841	1,486
Transfer to reserves or deficit	3,656	12,854	4,755	3,634	3,936	10,651
Total expenditure	**40,858**	**52,654**	**58,192**	**56,351**	**58,701**	**64,049**
	Contributors, pensions and lump sum benefits (Number)					
Contributors current	**20,463**	**21,557**	**20,183**	**19,198**	**19,249**	**20,217**
Pensions current	**8,695**	**8,379**	**7,982**	**7,633**	**7,293**	**6,934**
Lump sum benefits approved	**426**	**424**	**596**	**556**	**608**	**612**

(a) Additional levy paid by mine owners towards provision for, or towards the payment of, benefits.

GENERAL INSURANCE

Under the provisions of the (Commonwealth) *Insurance Act 1973*, the Insurance Commissioner is responsible for the financial supervision of the general (non-life) insurance industry in Australia. The Act provides minimum financial standards to be met by all companies carrying on general insurance business or proposing to carry on general insurance business in Australia. (Government insurance offices are not subject to the provisions of this Act.)

The Commissioner is also responsible for the administration of the *Insurance (Agents and Brokers) Act 1984* so far as it relates to general insurance brokers and agents of general insurance companies.

The Insurance Contracts Act, which commenced on 1 January 1986, reforms and modernises the law relating to contracts of both life and general insurance in order to improve the flow of information from the insurer to the insured, and to provide a uniform and fair set of rules to govern both insurer and insured.

Employers must compensate employees for injuries sustained and disease contracted in the course of their employment, and must insure against their liability to pay this compensation. Details regarding the workers' compensation law and its operation are given in the division "Employment" in Chapter 10 "Labour".

The insurance of owners and drivers of motor vehicles against liability resulting from death or bodily injury caused to another person has been compulsory in New South Wales since 1943. Particulars are given in the division "Motor Transport and Road Traffic" in Chapter 14 "Transport and Communication".

Government Insurance Office of New South Wales

Pursuant to the Government Insurance Act 1927, the insurance business of the Government Insurance Office of New South Wales is divided into the following divisions:

(a) Life insurance business. (some details of which are given earlier in this division)
(b) Insurance funds administration business, being business comprising the administration of any insurance funds which may from time to time be managed or administered by the Office on behalf of the Government of New South Wales, a public Authority or any other persons or body.
(c) General insurance business, being all other business.

A summary of the revenue and expenditure of the General Insurance Division of the Office is shown for recent years in the next table.

**Government Insurance Office of New South Wales: General Insurance Division *(a)*, Revenue and Expenditure
($'000)**

Particulars	*Year ended 30 June* 1981	1982	1983	1984	1985	1986
Earned premium income *(b)*	135,086	187,911	260,604	333,300	349,093	369,024
Investment income	33,088	32,975	44,443	65,988	84,178	163,209
Total income	**168,174**	**220,887**	**305,047**	**399,288**	**433,271**	**532,233**
Claims *(c)*	116,036	160,553	208,826	274,213	284,127	381,748
Contributions to: Fire Brigades	4,670	5,927	7,194	13,654	10,277	8,413
Workers' Compensation Commission	547	1,032	985	1,103	3,161	4,729
Expenses of management	21,682	26,429	36,090	47,743	55,071	60,638
Total claims and expenses	**142,936**	**193,941**	**253,095**	**336,714**	**352,636**	**455,528**
Income tax *(d)*	10,851	8,985	20,198	21,971	30,498	—

(a) Excludes motor vehicle (third party) insurance and Governmental Workers' Compensation Account. *(b)* Comprises premiums (less reinsurances) less increase, or plus decrease, in provision for unearned premiums (in 1985-86 the increase in this provision was $13,734,000). *(c)* Claims paid less decrease, or plus increase, in provision for outstanding claims (in 1985-86 the increase in this provision was $133,102,000). *(d)* The Government Insurance Office is not subject to Federal Income Tax but it makes a contribution equivalent to income tax to the N.S.W. Treasurer.

For 1985-86, the dissection of earned premium income between the various classes of insurance was: workers' compensation $168,902,000 (Private Sector) and $21,728,000 (Public Sector), Corporate $21,385,000, Small Business $11,940,000, Motor Vehicle $85,064,000, Householders $59,560,000 and Other $445,000.

A summary of the revenue and expenditure of the Motor Vehicles (Third Party) Insurance Division of the Government Insurance Office (being business conducted under the Motor Vehicles (Third Party Insurance) Act 1942) is set out below.

Government Insurance Office of New South Wales: Motor Vehicles (Third Party) Insurance Division, Revenue and Expenditure
($'000)

Particulars	Year ended 30 June 1981	1982	1983	1984	1985	1986
Net premiums *(a)*	291,067	330,771	369,566	412,952	423,337	461,358
Investment income	102,657	130,711	162,683	181,495	174,454	171,170
Total income	**393,724**	**461,482**	**532,249**	**594,447**	**597,791**	**632,528**
Claims paid	228,683	285,456	392,235	522,839	639,589	781,212
Commission for premium collection *(b)*	3,768	5,277	5,904	6,369	6,527	7,682
Expenses of management	3,871	5,091	6,016	7,183	8,844	23,840
Total claims and expenses	**236,322**	**295,823**	**404,155**	**536,391**	**708,960**	**812,734**

(a) Premiums less reinsurances and less increase in provision for unearned premiums. *(b)* Paid to Department of Motor Transport.

INTEREST RATES

BANK INTEREST RATES

Trading and Savings Banks

Under the Banking Act the Reserve Bank may, with the approval of the Federal Treasurer, make regulations to control rates of interest payable to or by banks or other persons in the course of banking business. The Reserve Bank has not formally promulgated regulations but has adopted the procedure of informing banks by letter of the controls on rates of interest which it has established with the Treasurer. The only remaining ceiling on bank interest rates applies to loans of less than $100,000 for owner-occupied housing approved prior to 3 April 1986. The ceiling rate is 13.5 per cent.

The trends in recent years in the rates of interest paid by banks on deposits, and in the rates charged on bank loans and advances, are illustrated in the next table.

Bank Interest Rates
(Per cent per annum)

Type of deposit of loan	At end of June 1981	1982	1983	1984	1985	1986
TRADING BANKS *(a)* —						
Fixed deposits —						
Less than $50,000 (predominant rate) —						
30 days	12.50	11.00	11.00	10.75	13.50	13.00
3 months	13.50	11.50	11.00	11.00	14.00	12.75
6 months	14.50	11.50	11.50	12.50	14.00	13.25
12 months	14.00	12.00	11.50	12.50	13.50	13.25
24 months	14.00	11.50	11.50	12.00	13.00	13.00
48 months	14.00	11.50	12.00	12.00	12.50	12.50
Loans and advances (max. rate) —						
Overdrafts less than $100,000 *(b)*	14.50	14.50	14.50	14.50-15.50	16.75-19.50	16.25-20.50
SAVINGS BANKS *(a)*						
Deposits (predominant rate) —						
Ordinary accounts						
Passbook —						
To $4,000	3.75	3.75	3.75	3.75	3.75	3.75
Over $4,000	6.00	6.00	6.00	6.00	6.00	6.00
Statement	11.00	11.00	10.00	10.00	12.00	11.50
Investment accounts *(c)*	12.50	11.00	9.75	10.00	10.00-14.50	10.00-14.50
Loans and advances —						
Housing loans to individuals (predominant rates)	13.50	12.50	11.50	12.00	15.00	15.50
PRIMARY INDUSTRY BANK OF AUSTRALIA —						
Transferable certificates of deposit *(d)* —						
2 years	. .	. .	12.50	13.25	13.00	13.00
4 years	16.00	*(e)*13.80	13.00	13.50	12.75	13.00
5 years	. .	*(e)*13.80	. .	. .	12.75	13.00

(a) Source: Reserve Bank. *(b)* Rates on amounts of $100,000 or more were subject to negotiation between banks and their customers. From 29 April 1985, the maximum rate restriction was removed. *(c)* Subject to minimum deposit and withdrawal, and balance of account requirements. *(d)* For latest issue, minimum deposit $1,000 and thereafter in multiples of $100, to a maximum of $50,000. *(e)* Rates at end of August 1983 for certificate issued on a continuous basis.

COMMONWEALTH BOND YIELDS AND MISCELLANEOUS INTEREST RATES

Commonwealth Treasury Bond Yields

Commonwealth Treasury Bonds are a fixed term, fixed interest investment and are listed on Australian Stock Exchange. In June 1982, the Australian Loan Council introduced a tender system for selling Bonds to replace the tap system as the sole method by which these Bonds are sold. More detailed description of the tap system are published in previous issues of the New South Wales Year Book.

Indicative coupon rates for borrowings by smaller semi-government and local authorities are published by the Loan Council Secretariat. The published rates are based on secondary market yields, as assessed by the Secretariat, on Treasury Bonds of comparable maturities, plus a margin for each maturity, which is generally reviewed monthly.

Further information on the Loan Council is published in the relevant part of the "Public Finance", Chapter 22, of this issue of the Year Book.

Premier State Bonds

In June 1983, in terms of the Treasury Corporation Act, 1983, the New South Wales Treasury Corporation was established as the central borrowing authority for semi-government bodies and electricity county councils. The Premier State Bonds issued by the Corporation require a minimum deposit and deposits thereafter in multiples of $100; there is no maximum limit. Rates are contained in the next table.

Australian Savings Bonds

Australian Savings Bonds were first issued in January 1976 to replace Special Bonds. The maximum individual holding of Australian Savings Bonds and Special Bonds, all series combined, is $200,000. Rates contained in the next table are the rates payable (for the term of the loan) on the series open for subscription at the end of June for the years shown.

Official Short-term Money Market

Authorised dealers in the Short-term Money Market accept loans in amounts of $50,000 or more, either at call, at notice, or for fixed periods. Interest rates payable by the dealers on the funds lodged with them are set competitively, the rates depending largely on the yields currently available on money market securities, the general availability of money, and the period of the loan. The interest rates shown in the next table were compiled by the Reserve Bank and are the weighted average of daily figures for the four or five weeks ending on the last Wednesday of the month.

Finance Companies Debenture Stock

Debentures and unsecured notes have become established forms of capital raising, particularly by finance and other companies making regular approaches to the market to renew existing loans or to raise additional operating capital. The terms and rates of interest vary from time to time and from company to company. The rates of interest offered on first-ranking debentures of finance companies associated with major trading banks are shown in the next table. The ranges of interest rates were current at the end of June for the years shown and were compiled by the Reserve Bank.

Building Societies in New South Wales

Under the (State) Permanent Building Societies Act 1967, the Minister for Housing, has a reserve power to set maximum rates Building Societies are permitted to charge on residential housing loans.

The rates of interest applicable on building society deposits at the end of June in recent years are shown in the next table. Fixed term deposits require a minimum amount to be deposited. Investment accounts have minimum deposit and withdrawal and minimum balance of account requirements, and are subject to special notice of withdrawal.

Credit Unions in New South Wales

In accordance with the Credit Union Act, the Minister for Co-operative Societies, on the recommendation of the Credit Union Advisory Committee, sets maximum rates of interest which credit unions are permitted to pay on deposits. Prior to May 1982, maximum rates were set for the different types of deposit accepted by credit unions. From 26 May 1982, however, only a single maximum deposit rate is set (currently 18.5 per cent) and credit unions fix deposit rates equal to, or less than, this maximum rate for their various investment options. The rates of interest applicable on credit union deposits at the end of June in recent years are shown in the next table.

Commonwealth Security Yields and Miscellaneous Interest Rates *(a)* (per cent per annum)

Type of security, deposit, or loans	*June* 1982	1983	1984	1985	1986	1987
COMMONWEALTH SECURITY YIELDS *(b)* —						
TREASURY BONDS *(c)* —						
2 year term	16.40	13.70	12.20	13.45	12.80	13.00
5 year term	16.40	14.35	12.90	13.35	12.80	13.10
10 year term	16.40	14.85	13.75	13.50	12.95	12.80
15 year term	16.40	15.00	14.10	13.60	13.05	13.15
LOCAL AND SEMI-GOVERNMENT SECURITIES *(b)(d)* —						
Less than 5 years	17.32	14.39	13.04	13.44	13.63	14.10
5 years or more	17.35	15.52	13.88	14.13	13.52	14.22
NEW SOUTH WALES TREASURY CORPORATION —						
PREMIER STATE BONDS *(e)* —						
2 years	. .	13.70	. .	13.25	. .	13.75
3 years	. .	. .	12.90	. .	13.00	. .
4 years	. .	. .	. .	. .	. .	13.75
5 years	. .	. .	13.25	13.40	12.90	. .
7 years	. .	15.10	13.50	. .	. .	. .
8 years	. .	. .	. .	13.50	. .	. .
10 years	. .	15.60	13.75	. .	. .	. .
15 years	. .	15.60	. .	. .	. .	. .
AUSTRALIAN SAVINGS BONDS	13.25	12.25	11.25	11.25	13.00	13.00
OFFICIAL SHORT-TERM MONEY MARKET *(b)* —						
Rate on loans outstanding	14.88	9.76	11.42	15.07	13.20	12.79
FINANCE COMPANIES *(b) (f)* —						
1 year debentures	16.50-17.00	12.75-13.25	11.75-12.50	. .	. .	. .
2 year debentures	16.50-17.00	13.00-14.00	12.50-13.00	14.00	14.25	13.75-14.20
3 year debentures	. .	. .	. .	13.50	14.00	13.50-14.20
5 year debentures	15.75-17.00	14.00-14.75	13.00-13.50	13.50	13.25	. .
BUILDING SOCIETIES IN N.S.W. *(g)* —						
Standard range of rates on deposits in permanent building societies	*(h)*9.50-17.50	7.00-13.50	5.00-12.50	5.00-14.25	7.00-15.25	7.00-14.75
CREDIT UNIONS *(i)* —						
(max. rate on deposits) —						
No fixed term	13.00	11.00	9.00	11.00	13.00	6.00-14.50
Notice of withdrawal account	14.00	13.00	10.50	12.00	8.50-14.00	8.00-12.50
Fixed term —						
Over 3 months	17.50	14.50	14.00	15.50	10.50-17.00	14.00-15.75

(a) See explanatory text above table relating to each type of security, deposit or loan. *(b)* Source: Reserve Bank. *(c)* Assessed secondary market yields (before brokerage) on non-rebate bonds on last business day of the month. *(d)* Weighted average yields on securities traded on stock exchanges in Sydney and Melbourne in the four or five weeks ending on the last Wednesday of the month. *(e)* Minimum deposit $500 and thereafter in multiples of $100. *(f)* Finance companies associated with major trading banks. Range of interest rates current at end of month. *(g) Source:* Permanent Building Societies Association. *(h)* From 23 April 1982, rates obtainable over the full range of investment options. *(i) Source:* Association of N.S.W. Credit Unions Limited.

OTHER PRIVATE FINANCE

INCORPORATED COMPANIES

The legislation and administrative procedures regulating the formation and conduct of companies in New South Wales are now part of a uniform scheme covering the six States, the Australian Capital Territory and the Northern Territory.

This co-operative scheme provides that amendments to the Commonwealth Acts must be approved by the Ministerial Council and that, once enacted, the amendments will apply automatically to State jurisdictions, subject to the making of regulations to effect any necessary local modifications.

Australian companies incorporated in and Foreign Companies registered in any other Australian State are permitted to operate in New South Wales as recognised companies rather than having to register again.

The New South Wales Corporate Affairs Commission comprises three Commissioners appointed by the Governor. The objectives of the Commission include ensuring compliance with legislation within its jurisdiction; the registration of companies and business names operating within New South Wales; meeting public demand for information required to be maintained at the Commission in respect of companies, businesses and persons; exercising a protective role in relation to investors and creditors; and ensuring securities dealings occur in a fair and informed market.

Registration of Companies

Particulars of the registrations of companies in New South Wales are shown for recent years in the next table.

New Incorporated Companies Registered in N.S.W. *(a)*

Type of Company	*Year ended 30 June*				
	1982	*1983*	*1984*	*1985*	*1986*
Proprietary	28,285	12,024	15,817	15,391	16,083
Public	15	55	122	170	258
Limited by Guarantee	222	178	257	219	105
Limited by Shares and Guarantee	2	2	1	4	1
No Liability	3	7	12	9	13
Unlimited	17	26	20	11	9
Foreign	—	55	87	64	66

(a) Source: Corporate Affairs Commission.

The number of companies on the register in New South Wales at 30 June 1985 and 1986, together with the numbers of "recognised" companies permitted to operate in the State, are shown in the following table.

Number of Companies on Register and Recognised Companies, N.S.W. *(a)*

Particulars	*As at 30 June*	
	1985	*1986*
Public Companies	2,168	2,486
Proprietary Companies — non-exempt	7,200	7,437
Proprietary Companies — exempt	221,355	231,631
Unlimited companies	292	300
"Section 66" Companies *(b)*	922	940
Companies limited by guarantee	3,460	3,579
"No liability" companies	138	147
Companies subject to action for removal from register and defunct companies	7,290	8,007
Companies in liquidation	6,996	7,888
Recognised companies and recognised foreign companies *(c)*	14,960	15,901
Foreign companies in liquidation	171	168
Foreign companies subject to deregistration	340	150
Total companies on register	**266,341**	**279,763**

(a) Source: Corporate Affairs Commission. *(b)* Companies formed to provide recreation or amusement or to promote commerce, industry, art, science, religion, charity, pension or superannuation schemes or for other community purposes may be registered as a company with limited liability but without the word "limited" in their name. These companies may be exempted from certain provisions of the Companies Act. *(c)* See text under heading "Incorporated Companies" (above).

STOCK EXCHANGES

Australian Stock Exchange (Sydney) Limited

Although its origins go back to 1871, the Exchange was incorporated as a public company, The Sydney Stock Exchange Limited, in 1964. In December 1985 the Boards/Committees of all six official Australian Stock Exchanges agreed to the formation of a single national Stock Exchange. The agreement was subsequently ratified by the membership of all Exchanges and in 1987 the Australian Stock Exchange Limited was incorporated by Act of Parliament.

The Australian Stock Exchange Board will comprise ten directors who are members of Australian Stock Exchange and four outside directors. There must be at least one Member director from each state. The Board of each State subsidiary will be appointed by the Board of Australian Stock Exchange on the basis of election by members residing in that State. Management authority will be vested in a Group Executive Committee comprising the chief executive of each of the six Exchanges and the Executive Director of the Australian Associated Stock Exchanges.

Effective from April 1984 deregulation enabled stockbroking organisations to have corporate membership of the Exchange in addition to the traditional individual membership. Many stockbrokers responded by accepting large domestic or overseas shareholders and some mergers have taken place to strengthen smaller firms. Fixed rates of commission were also deregulated from April 1, 1984.

At June 30, 1986 there were 40 members organisations of the Sydney Stock Exchange. The national membership was over 100 organisations at the formation of Australian Stock Exchange. The number of nationally listed corporations at June 1986 was 1,141 with Sydney acting as home exchange for 440 of these.

The next table shows selected statistics for the last six years as traded by the Sydney Stock Exchange.

Sydney Stock Exchange: Value and Volume of Shares Traded *(a)*

	Year ended 30 June					
	1981	*1982*	*1983*	*1984*	*1985*	*1986*
	Turnover Value ($ million)					
Industrial and Preference	2,037	1,639	1,697	3,489	5,004	12,317
Mining and Oil *(b)*	2,182	948	1,506	2,250	2,530	3,781
Fixed Interest (c)	1,618	1,718	2,759	8,458	17,841	26,488
Exchange Traded Options	265	74	111	210	281	774
	Turnover volume (million shares)					
Industrial and Preference	933	806	927	1,533	2,241	4,332
Mining and Oil *(b)*	2,672	1,339	2,346	3,418	3,589	5,266
Fixed Interest	1,859	2,053	2,956	8,609	18,084	26,935

(a) Source: Sydney Stock Exchange Annual Report. *(b)* Figure comprises turnover value of $3,006m and $775m in the year 1985-86 for mining and oil respectively. The turnover volume for mining and oil in the same year totalled 3,621 and 1,645 million respectively. *(c)* Figure comprises $23,168m and $3,285m in the year 1985-86 for Commonwealth loans and Public Securities respectively.

BANKRUPTCY

Under *the Bankruptcy Act 1966,* a sequestration order may be made by a Court exercising jurisdiction in bankruptcy, on a bankruptcy petition presented by a creditor, provided that the aggregate amount of the indebtedness is not less than $1,500. A debtor may also become a bankrupt by the presentation to the Registrar in Bankruptcy of a petition and the acceptance thereof by the Registrar. Upon bankruptcy, the property of the bankrupt divisible amongst his creditors is vested in the Official Trustee in Bankruptcy or a private (registered) trustee of the bankrupt estate. The Act provides for alternatives to bankruptcy by way of a deed of assignment, deed of arrangement, or composition. The debtor's divisible estate (but not after acquired property) can be assigned to registered trustee under the Bankruptcy Act for distribution to creditors; a deed of arrangement is entered into directly between the debtor and his creditors as to how the debt will be repaid; and a composition is used where the creditors agree to accept, in full settlement, a proportion of the money owing or accept payment of the debt due by instalments.

The following statement shows particulars of bankruptcies (comprising sequestrations and debtors' petitions), orders for administration of deceased debtors' estates, deeds of assignment, deeds of arrangement, and compositions in New South Wales under the Bankruptcy Act in each of the last six years. The table includes the Australian Capital Territory, which for the purposes of the Act, is included in the bankruptcy district of New South Wales.

Bankruptcy Proceedings, New South Wales

Particulars		*Year ended 30 June* *1980*	*1981*	*1982*	*1983*	*1984*	*1985*
Bankruptcies —							
Number		1,208	1,166	956	1,160	1,161	1,185
Liabilities	$'000	36,909	31,388	20,476	76,302	67,278	71,948
Assets	$'000	17,685	13,270	12,220	10,724	7,705	11,143
Orders for administration of deceased debtors' estates —							
Number		7	2	8	1	..	..
Liabilities	$'000	984	39	500	23	..	..
Assets	$'000	—	44	251	6	..	..
Deeds and compositions *(a)* —							
Deeds of assignment —							
Number		81	70	72	99	94	99
Liabilities	$'000	4,561	9,971	5,199	14,833	16,879	12,285
Assets	$'000	1,787	1,439	1,691	12,125	2,315	1,399
Deeds of arrangement —							
Number		31	33	37	31	36	55
Liabilities	$'000	2,194	3,189	3,306	20,477	2,605	8,818
Assets	$'000	638	487	3,002	2,387	453	921
Compositions —							
Number		34	59	42	48	42	79
Liabilities	$'000	1,083	1,755	2,501	10,235	3,475	10,446
Assets	$'000	202	296	473	1,577	432	733
Total bankruptcies, etc.							
Number		**1,361**	**1,330**	**1,115**	**1,339**	**1,333**	**1,418**
Liabilities	$'000	**45,731**	**46,342**	**31,982**	**121,870**	**90,237**	**103,497**
Assets	$'000	**20,312**	**15,536**	**17,637**	**26,819**	**10,905**	**14,196**

(a) Under Part X of the Bankruptcy Act.

An industry classification of bankrupts, deceased debtors, and debtors who entered into deeds of assignment, deeds of arrangement, or compositions under Part X of the Act during the last two years is shown in the following table.

Industry Classification of Bankrupts, etc., New South Wales

	Year ended 30 June			
	1984		*1985*	
Industry Classification	*Business bankruptcies (a)*	*Non-business bankruptcies (b)*	*Business bankruptcies (a)*	*Non-business bankruptcies (b)*
Primary production	16	—	15	10
Mining and quarrying	2	3	4	3
Manufacturing	30	27	32	19
Electricity, gas, water and sanitary services	6	2	6	8
Building and construction	68	28	99	35
Transport and storage	65	35	70	30
Communication	7	13	7	8
Finance and property	18	10	15	18
Commerce	84	20	83	34
Public authority (n.e.i.) and defence services	1	18	18	1
Community and business services (inc. professional)	98	38	110	51
Amusement, hotel and other accommodation, cafes, personal services, etc.	97	16	94	40
Other industries	34	18	37	27
Industry inadequately described or not stated	47	27	39	29
Persons not engaged in any remunerative employment	—	344	—	340
Total bankrupts etc. *(c)*	**573**	**599**	**629**	**654**

(a) Employers and persons who had been previously self-employed in a trade, business, or profession which was connected with the bankruptcy or arrangement with creditors. *(b)* Wage and salary earners and all other persons including pensioners having no remunerative employment. *(c)* Totals shown may not agree with the total number of bankruptcies shown in the previous table due to different sources of the data.

CREDIT ACT 1984

The main provisions of the Credit Act 1984 which amended and extended the regulation of consumer credit transactions are described in the Section "Consumer Protection" in Chapter 20 "Internal Trade".

FURTHER REFERENCES

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Appendix A

PRINCIPAL EVENTS IN THE HISTORY OF NEW SOUTH WALES

The principal events in the history of New South Wales from 1770 to 1987 are listed below in chronological order.

1770 Captain Cook landed at Botany Bay, 28 April, 1770.

1774 Discovery of Norfolk Island by Captain Cook.

1788 "First Fleet", under the command of Captain Arthur Phillip, anchored in Botany Bay, 18-20 January; formal possession taken of Sydney Cove, Port Jackson, 26 January; 1,035 persons debarked — Governor Arthur Phillip formally proclaimed the Colony, 7 February — Norfolk Island established as a dependency — Lord Howe Island discovered by Ball — First settlement at Rose Hill (afterwards Parramatta) — Observatory established at Dawes" Point — First cultivation of wheat and barley — Pittwater, Brisbane Water, Hawkesbury River discovered.

1789 Hawkesbury River explored — First harvest (wheat and barley) reaped at Parramatta — Nepean River discovered — First colonial-built boat, *Rose Hill Packet*, launched.

1790 Second Fleet arrived — *Sirius* lost at Norfolk Island — Scarcity of provisions — Signal Station established at South Head, Port Jackson.

1791 Third Fleet arrived — Settlements at Prospect Hill and The Ponds — First grants of land to settlers — First exploration map of Australia published.

1792 First foreign trading vessel *Philadelphia* arrived — Governor Phillip returned to England leaving Lieutenant-Governor Grose in charge.

1793 First free immigrants arrived in the *Bellona* and settled at Liberty Plains — Exploration of Blue Mountains attempted — First place of public worship built in Sydney.

1794 Hawkesbury River settlement — Grose returned to England — Lieutenant-Governor Paterson assumed command.

1795 First flood in Hawkesbury River after settlement — Captain John Hunter became the second governor — First printing press erected — Descendants of strayed cattle found at Cowpastures, Nepean River — First important civil action at law.

1796 Port Hacking explored by Bass and Flinders — First theatre opened — Coal found at Port Stephens — First school opened at Parramatta.

1797 Coal discovered at Illawarra (Coalcliff) and near Coal (Hunter) River at Newcastle — Bass discovered Twofold Bay — Merino sheep imported from Cape of Good Hope — Tuggerah Lakes discovered — Bass discovered Bass Strait.

1798 Insularity of Van Diemen's Land (Tasmania) established by Bass and Flinders.

1799 Flinders explored North Coast — Wilson reached Lachlan River via Mittagong Tableland — Coal shipped from Hunter River District.

1800 Customs House established at Sydney — Import duties first levied — First Volunteer Force for defence raised at Sydney — Captain Philip Gidley King became the third governor.

1801 First issue of copper coin — Hunter River coal-mines worked by convicts — First colonial manufacture of blankets and linen — First rough Census muster

1802 Port Phillip Bay entered and examined by Lieutenant Murray — First book (General Standing Orders) printed in Sydney — Flinders' explorations of the coasts of the continent.

1803 First sample of Australian wool taken to England by Captain Macarthur — Caley attempted to cross Blue Mountains — First newspaper (Sydney Gazette and New South Wales Advertiser) published in Sydney (issued weekly) — First settlement established at Risdon, in Van Diemen's Land, by Bowen — Attempted settlement of Port Phillip by Lieutenant-Governor Collins abandoned — Flinders completed the circumnavigation of Australia

1804 First settlement at Hobart Town (in Van Diemen's Land) comprising Lieutenant-Governor Collins' party of free settlers and convicts — Newcastle settlement — "George III flock of merinos" arrived — Castle Hill convict revolt.

1805 Macarthur received a grant of 5,000 acres including part of Cowpastures reserve; began sheep-farming at Camden with imported Spanish Merinos.

1806 Governor King succeeded by Captain William Bligh — Shortage of provisions; Wheat, 80s, bushel — Tobacco successfully cultivated.

1807 First parcel of merchantable wool (245 lb.) exported to England.

1808 Macarthur arrested and tried — Governor Bligh deposed by Lieutenant-Colonel Johnston who assumed command of the Colony — Lieutenant-Colonel Foveaux relieved Johnston.

1809 Colonel Paterson assumed command from Lieutenant-Governor Foveaux — Johnston and Macarthur proceeded to England to attend the court-martial regarding Bligh's deposition — Free school established — First Post Office conducted by Isaac Nichols.

1810 Lieutenant-Colonel Lachlan Macquarie assumed position of Governor — Sydney streets and Hyde Park named — Toll-gates erected.

1811 Johnston tried by court-martial in England (found guilty of an act of mutiny) — Sydney Hospital (Rum Hospital) foundation laid.

1812 Creation of Governor's Court and Supreme Court — Select Committee of House of Commons appointed to inquire into condition of New South Wales — Great scarcity of coin; private money-orders and promissory notes issued.

1813 Blaxland, Lawson, and Wentworth crossed Blue Mountains — Evans discovered Bathurst Plains and Macquarie River — "Holey Dollar" and "Dump" issued for local currency.

1814 Charter of Justice published — Civil Jurisdiction, Supreme Court commenced — First Judge (J. H. Bent) arrived — Hume explored Berrima District — Name "Australia" substituted for "New Holland," on recommendation of Flinders — New Zealand proclaimed a dependency of New South Wales.

1815 Cox's Road over the Blue Mountains, Emu Plains to Bathurst, opened — Bathurst founded by Governor Macquarie — First steam engine erected in Sydney — First sitting of Supreme Court — Evans explored Lachlan River.

1816 Sydney Hospital opened — Sydney Botanic Gardens formed — Judge Bent recalled.

1817 Oxley's first journey inland to explore the Lachlan and Macquarie Rivers — Meehan and Hume discovered Lakes George and Bathurst, and the Goulburn Plains — First bank (Bank of New South Wales) established — Hyde Park Barracks built — Macarthur returned to New South Wales after eight years banishment.

1818 Oxley discovered Peel, Hastings, and Manning Rivers, and Liverpool Plains — Free immigration suspended.

1819 Commissioner Bigge's inquiry into laws and administration of Colony — First Australian Savings Bank (New South Wales Savings' Bank) opened at Sydney.

1820 Clyde River discovered by Lieutenant R Johnson — Government guard boats established.

1821 Ten ships despatched with Australian produce for England — Settlement formed at Port Macquarie — Governor Macquarie resigned from office and replaced by Sir Thomas Brisbane.

1822 (Royal) Agricultural Society of New South Wales established — First Colonial Attorney admitted — Road from Richmond to West Maitland opened — Settlement formed at Wellington Valley.

1823 First Australian Constitution, Legislative Council of five to seven persons nominated by the Governor; first councillors (five) appointed under warrant of 1 December — Free settlers encouraged — Squatting commenced — Particles of gold found at Fish River, near Bathurst — Murrumbidgee River discovered and Monaro Plains explored by Currie and Ovens.

1824 New South Wales proclaimed a Crown Colony — Governor's censorship ended and press freed — First Criminal Sessions with trial by jury of seven military officers — First Land Regulations — Hume and Hovell commenced overland expedition to the South — New Charter of Justice proclaimed — First Executive Council meeting, 25 August — Currency Act (first Act of Parliament in Australia) — First manufacture of sugar — Australian Agricultural Company formed — Supreme Court of Criminal Jurisdiction established.

1825 Van Diemen's Land (Tasmania) proclaimed a separate Colony — First Act governing the issue of liquor licenses — First Postal Act (to regulate the postage of letters) — Western boundary of New South Wales moved to 129th east meridian.

1826 First free library (Australian Subscription Library) founded — Illawarra settlement established by Captain Bishop — Land Board appointed.

1827 Colony self-supporting — Land and stock speculations — Gwydir, Dumaresq, and Condamine Rivers and the Darling Downs discovered by Cunningham — Sydney Water supply scheme (Botany Swamps) initiated — Naval control of Customs ceased.

1828 Second Constitution; Legislative Council enlarged to fifteen members — First Census, population 36,598 — Richmond and Clarence Rivers discovered by Rous — General Post-Office communication established and rates of postage fixed — Imperial Act passed which provided that all laws and statutes in force in England in 1828 apply to New South Wales (including Peel's Acts for the reform of the criminal law).

1829 Sturt's first expedition and discovery of the Darling River — Act of Council, establishing trial by civilian jury in civil cases — Settlement established in Western Australia as a British Colony.

1830 Sturt's second expedition and exploration of the Murrumbidgee River — Scarcity of labour — Road to Hunter River formed — Beef shipped to England, and horses to India.

1831 Land grants abolished — Mitchell's explorations north of Liverpool Plains — First immigrant ship arrived — First steamer *Sophia Jane* arrived at Sydney — First colonial-built steamer launched.

1832 First appropriation of Public Funds for Immigration — Government Gazette first published — Savings Bank of New South Wales instituted (taking over the deposits of "New South Wales Savings" Bank).

1833 Sydney Mechanics' School of Arts established — Appellate jurisdiction of Privy Council extended to Colony — Census, population 60,794 — Civilian juries (including emancipists) began sitting on criminal cases.

1834 Mitchell's Road over the Blue Mountains opened — Settlement at Twofold Bay — South Australia proclaimed a Colony by Imperial Act.

1835 Road to Illawarra commenced — Port Phillip area explored and settled.

1836 Mitchell's explorations in southern New South Wales of country called by him "Australia Felix" — Port Phillip proclaimed as part of New South Wales — Squatting formally recognised — Act passed for maintenance of ministers of religion — Australian Museum founded — Census, population 77,096 — Permanent settlement commenced in South Australia as a separate Colony.

1837 Select Committee on Transportation appointed in London — Settlement at Port Phillip surveyed and named "Melbourne" — Water supply tunnel from Botany Swamps completed.

1838 Assignment of convicts system ceased — Botanic Gardens in Sydney, opened to the public.

1839 Squatting Act passed — Strzelecki found gold near Hartley — Military juries in criminal cases ceased.

1840 Monetary crisis — Order-in-Council abolishing transportation of convicts — First Petition from Port Phillip for separation.

1841 Rev. W. B. Clarke found grains of alluvial gold near Bathurst — First public (Immigration) loan — Immigration Committee appointed — New Zealand proclaimed a separate Colony — Sydney lit with gas — Census, population 116,731.

1842 Sydney Municipal Corporation established — Bank crisis — Crown Land Sales Act — Moreton Bay proclaimed open to settlement and first sale of Moreton Bay land held in Sydney.

1843 First Representative Constitution Act; twelve Crown nominees and twenty four elected members of Legislative Council — Incorporation of Suburban and City Towns — First general election — Representative Assembly — Financial crisis — Failure of the Bank of Australia.

1844 Exports exceeded imports — Norfolk Island annexed to Van Diemen's Land (Tasmania) — Petition by six Parliamentary representatives from Port Phillip for separation.

1845 Sir Thomas Mitchell started on his expedition to the North-west in which he discovered the Fitzroy Downs and the Culgoa, Warrego, and Barcoo rivers — Responsible Government discussed.

1846 Sydney Tram and Rail Company formed — Public protests against renewal of transportation — Imperial Act giving fourteen years" lease to squatters in unsettled districts — Census, population 154,205 — Meat preserving industry initiated.

1847 Crown Land Leases Act — Australian Agricultural Co. abandoned coal monopoly at Newcastle — First overland mail between Sydney and Adelaide — Iron smelting works (Fitzroy Ironworks) opened near Berrima.

1848 Influx of Chinese — Kennedy's last expedition extended Mitchell's north-western explorations — National and Denominational School Boards established — Carcoar copper-mines discovered — Leichhardt set out on last expedition — Attempted revival of transportation, Order-in-Council of 1840 revoked.

1849 Exodus of population to California goldfields — Uniform twopenny postage instituted — Contract for conveyance of English mails — Anti-transportation meetings — Last convict ships arrived.

1850 University of Sydney incorporated — Final abolition of transportation.

1851 Hargraves discovered payable gold near Bathurst — Gold proclaimed Crown property — Colony of Victoria (Port Phillip District) separated from New South Wales — Imperial Act authorised preparation of Constitution for New South Wales — First electric telegraphic message sent in New South Wales — Census population, 182,424.

1852 Gold revenue allocated to Colonial Legislatures — First P. & O. mail steamer (*Chusan*) arrived from England — Inauguration and formal opening of Sydney University.

1853 First steamer on the Murray — Sydney City Corporation dissolved — First sewerage works in Sydney — Constitution Bill (establishing two chambers (the Legislative Council and the Legislative Assembly) passed.

1854 Volunteer force enrolled — University affiliated colleges established.

1855 Railway, Sydney to Parramatta, opened — Goldfields control scheme — Royal Sydney Mint established — New Constitution inaugurated; Responsible Government — First Australian gun-boat (*Spitfire*) launched at Sydney — Operative masons obtained eight-hour working-day concession.

1856 First elective Parliament and responsible Ministry led by Stuart Alexander Donaldson — Civil registration of births, deaths, and marriages inaugurated — Norfolk Island transferred to jurisdiction of Governor of New South Wales — Census, population 252,649.

1857 Wrecks of *Dunbar* (119 lives lost) and *Catherine Adamson* (21 lives lost) at Sydney Heads — Select Committee on Federation — Electoral lists and rolls printed — Corporation of Sydney (dissolved 1853) restored — Newcastle and Maitland connected by rail.

1858 Manhood suffrage and vote by ballot enacted — Telegraphic communication, Sydney to Melbourne and Adelaide — Royal Charter to Sydney University — Chinese Restriction Bill defeated by Upper House — Legislation to establish country district courts and country municipalities.

1859 Moreton Bay (Queensland) proclaimed a separate colony — Darling River navigated by Cadell and Randell.

1860 Kiandra goldfield rush — Troops sent from New South Wales to New Zealand (Maori war) — Burke and Wills expedition.

1861 Lambing Flat gold rush — Anti-Chinese riots at Lambing Flat and Burrangong goldfields — Sir John Robertson's Land Act; free selection before survey — Restriction of Chinese immigration — First Tramway (horse-drawn), Pitt Street, Sydney — Sydney and Brisbane connected by telegraph.

1862 State aid to religion abolished — Cobb and Co. coaching services introduced — Railway opened to Penrith — Free selection of land before survey came into operation — Real Property Act (Torrens Title) passed.

1863 Agent-General in London appointed — Northern Territory separated and annexed to South Australia — Money Order system established.

1864 Darling River floods.

1865 Border Duties Conference — Stamp Duties imposed.

1866 Public Schools Act; Council of Education replaced National and Denominational School Boards — Garden Island dedicated to Imperial Government for naval defence purposes.

1867 Industrial Schools established — Diamonds found at Mudgee — Volunteer Forces Regulation Act sets out organisation and duties of the Volunteer Corps.

1868 Duke of Edinburgh's attempted assassination at Clontarf — First issue of bronze coin by Sydney Mint.

1869 Old Australian Subscription Library (founded 1826) converted into Free Public Library — Railway extended to Goulburn.

1870 Intercolonial Exhibition at Sydney, celebrating Centenary of Cook's landing; monument erected at Kurnell, Botany Bay — Imperial troops withdrawn from New South Wales.

1871 Forest Reserves established — Permanent military force raised — Sydney Trades and Labour Council established — National Art Gallery founded — Census, population 503,981 — Government (Post Office) Savings Bank established.

1872 Cable to England completed — Tin-fields opened.

1873 Intercolonial Premiers' Conference, Sydney — Great activity on goldfields.

1874 Triennial Parliaments Act; duration of Parliament reduced from five to three years — General Post Office building in Sydney opened.

1876 Telegraphic cable laid between New South Wales and New Zealand — Railway extended to Bathurst — Deniliquin-Moama railway opened.

1877 Rail extended to Orange and Cootamundra — Precious opal discovered at Abercrombie River.

1878 Forestry and timber regulations — Technical College instituted in connection with Sydney Mechanics' School of Arts — Rail extended to Wagga.

1879 First steam tramway in Sydney — National Park dedicated — Technological Museum opened — First issue silver coin from Sydney Mint.

1880 Public Instruction Act; abolished aid to denominational schools and decreed that all State education must be non-sectarian — Electoral Act; number of electorates increased to 72 with 108 members — Temora Goldfield — Country Towns Water Supply and Sewerage Act — Telephones established in Sydney.

1881 Chinese immigration further restricted — Women admitted as students for degrees at Sydney University — Rail extended to Albury — Trade Unions Act — Infectious Diseases Supervision Act, creating Board of Health.

1882 Garden Palace destroyed by fire — Clyde Engineering Works established.

1883 Silver discovered at Broken Hill — Broken Hill Proprietary Syndicate formed — Railway bridge across Murray River opened — Through railway communication established between Sydney and Melbourne — State system of Technical Education instituted — Destruction of rabbits compulsory — Diamonds found at Bingara.

1884 Land legislation restricting sales by auction — Land Act giving fixity of tenure to pastoral lessees — Federation Bill rejected.

1885 N.S.W. Military Contingent sent to Soudan — Broken Hill silver mines opened — Territorial division of the colony: Local Land Boards instituted — Federal Council of Australasia constituted — Cessation of assisted immigration.

1886 Industrial depression — Foreign parcels-post established.

1887 Bulli mining disaster (83 lives lost) — Scarcity of employment; Government relief works started — Australasian Conference in London — Australasian Naval Defence Force Act.

1888 Centenary celebration of settlement in Australia; Centennial Park dedicated — Drastic legislation against Chinese immigration (poll-tax, £100) — Weekly mail service to England inaugurated — New South Wales and Queensland railway systems connected — Intercolonial Conference at Sydney regarding Chinese immigration — Metropolitan Board of Water Supply and Sewerage established.

1889 Rail communication, Brisbane to Adelaide through Sydney and Melbourne, established by opening of Hawkesbury River Bridge — Payment of Members of Parliament.

1890 Broken Hill miners, maritime, draymen and shearers' strikes — Naval Agreement.

1891 Failure of many Building Societies — Thirty-five Labour members returned to Legislative Assembly — Australian Auxiliary Squadron arrived — First National Australasian Convention; draft Bill adopted.

1892 First Industrial Arbitration laws; Councils of Conciliation established — Women's College, Sydney University opened — Hunter District Water Supply and Sewerage Board established — Technical College, Ultimo, opened.

1893 Financial crisis; 13 out of 25 trading banks closed their doors — Inland and interstate parcel post inaugurated — Electoral Act, "One Man One Vote" — Cable communication with New Caledonia — Postal notes issued — Married Women's Property Act.

1894 First Offenders' Probation Act — Kuring-gai Chase dedicated.

1895 Land and Income Tax Acts passed — Free-trade Tariff instituted — Standard Time Act.

1896 Enfranchisement of police

1897 Colonial Premiers Conference with Secretary for Colonies in London.

1898 First surplus of wheat for export — Proposed Federation Constitution Bill rejected by New South Wales — Sydney and Newcastle connected by telephone.

1899 Advances to settlers instituted — Australasian Federation Enabling Act Referendum; acceptance by New South Wales — Early closing of shops — Boer War; first contingent sent to South Africa from New South Wales — Incorporation of Public Library — First gold dredge in operation.

1900 Old-age pensions instituted — Miners' Accident Relief Fund established — First Federal Elections — Naval contingent despatched to China — Commonwealth of Australia Constitution Act received Royal assent.

1901 Federation of Australian Colonies — Proclamation of Commonwealth of Australia — Opening of first Federal Parliament by H.R.H. the Duke York — First Federal Ministry sworn in — Industrial Arbitration Act — Naval contingent returned from China — Introduction of Pacific Islanders prohibited — Postal, Customs, and Defence Departments transferred to Commonwealth — Interstate free-trade established.

1902 Mt. Kembla Colliery Explosion (ninety-five lives lost) — Women's Franchise — Pacific Cable completed — First sitting of Arbitration Court — Peace declared in South African War.

1903 High Court of Australia inaugurated.

1904 Reduction of number of members of Legislative Assembly from 125 to 90 — Educational Reforms commenced — Patents, Trade Marks, &c., transferred to Commonwealth — Commonwealth Conciliation and Arbitration Act.

1905 Assisted immigration reintroduced — Children's Courts instituted — Local Government (Shires) Act extending local government to whole State except Western Division.

1906 Barren Jack (Burrinjuck) Dam authorised and Murrumbidgee Irrigation Scheme approved — Public School fees abolished — Sydney Central Railway Station opened.

1907 Invalidity and accident pensions — Telephone connected from Sydney-Melbourne — Opening of blast furnace for manufacture of iron and steel at Lithgow — Medical inspection of school children initiated.

1908 Minimum Wage Act — Industrial Wages Boards constituted — Yass-Canberra Federal Capital site selection — Cataract Dam completed.

1909 Fisher Library (Sydney University) opened — Old-age pensions administration transferred to Commonwealth — Miners strike at Newcastle and Broken Hill, several strike leaders imprisoned.

1910 Mitchell Library opened — Australian silver coinage issued — Saturday Half-holiday instituted in Sydney and the larger towns of N.S.W. — Workmen's Compensation Act — Federal Land Tax — Australian Penny Postage — First Labour Government to office in New South Wales.

1911 First Australian Note issue — Compulsory defence training initiated — First wireless station (private) licensed for transaction of public business — First section of North Coast railway opened — Evening Continuation Schools opened — Flight of first Australian aviator (W.E. Hart) from Sydney to Penrith — First cruiser to be constructed locally Warrego was launched from Cockatoo Dock.

1912 Bursary Endowment, Secondary Education — Federal Capital architectural designs selected — Murray Waters Agreement — Lithgow Small Arms Factory opened — Murrumbidgee Irrigation Farms available, and irrigation commenced — Commonwealth Bank established — Commonwealth maternity allowances — Sydney (Pennant Hills) Wireless Station opened.

1913 Federal Capital City named Canberra, and foundation stones laid — Arrival at Sydney (October) of Australian Fleet, including battle cruiser *Australia* and cruisers *Sydney* and *Melbourne* — First Cost of Living and Living Wage Inquiry in Industrial Arbitration Court.

1914 Norfolk Island transferred to control of Commonwealth Government — First aerial mail, Melbourne to Sydney — Direct telephone, Sydney to Adelaide, opened — First Baby Clinic opened — State advances for homes initiated — World War; local defence forces mobilised and Expeditionary force of volunteers despatched to co-operate with Imperial forces — Australian Naval Unit transferred to direct Imperial control — Necessary Commodities Control Act introduced extensive provisions for price regulation.

1915 Australian Expeditionary forces in action at Dardanelles and in Egypt — Newcastle iron and steel works opened — Conservatorium of Music opened — Policewomen appointed — State trawling scheme in operation — Meat supply for Imperial Uses Act — War census — Commonwealth Powers (War) Act — Commonwealth Income Tax — Wheat harvest marketed by Australian Government — Lighthouses transferred to Commonwealth control — Jervis Bay area transferred to Australian Capital Territory.

1916 Australian Expeditionary forces in action in France — Liquor Referendum resulted in closing hotels at 6 p.m. — Fair Rents Court commenced — Military Service Referendum; rejection of proposal for compulsory military service abroad — Public Instruction Act amended in order to provide for registration of private schools — Workmen's Compensation law extended to all workers.

1917 Transcontinental Railway opened — Daylight Saving initiated and abandoned — Second Military Service Referendum; proposal rejected.

1918 World War armistice declared — Women's Legal Status Act passed — Judges Retirement Act — War Postage imposed — Commonwealth Repatriation Department created — Act passed to introduce system of proportional representation at State Parliamentary elections.

1919 World War Peace signed — Extensive industrial disputes particularly seamen and Broken Hill miners — State Housing scheme initiated — Influenza epidemic — Wheat silos erected for bulk handling — First aeroplane flight, England to Australia (twenty-eight days) by Ross Smith.

1920 Multiple electorates and proportional representation at State election — Compulsory school attendance introduced — Living wage of £4.5s per week declared for whole State.

1921 44-hour week introduced (State) — First direct wireless press message from England to Australia.

1922 Rural Bank established — Reversion to 48-hour week (State).

1924 Compulsory voting at Commonwealth elections — Australian Loan Council formed.

1925 Sydney Harbour Bridge commenced — Broadcasting stations established.

1926 First section of Sydney underground railway opened — Electrification of suburban railways commenced — 44-hour week reintroduced (State) — Widows' pensions (State) instituted — Workers' compensation insurance compulsory.

1927 First sitting of Commonwealth Parliament in Canberra — Commercial wireless communication established with England — Family endowment (State) instituted — System of single seats and preferential voting at State elections — 44-hour week (Commonwealth awards) — Western railway opened to Broken Hill.

1928 Australian Loan Council reformed — First aeroplane flight from United States to Australia by Kingsford-Smith.

1929 Compulsory voting at State elections — Compulsory military training suspended — Royal Commission on Coal Industry.

1930 Wireless telephone service to England established — Acute economic depression — Moratorium Act — Unemployment Relief Tax imposed — Sales Tax introduced.

1931 Government Savings Bank of N.S.W. suspended payment (22 April); subsequently amalgamated with Commonwealth Savings Bank — Premiers" Financial Agreement (reduction of expenditure) — Commonwealth Conversion Loan (internal debts $1,106m) — Legislation for reduction of interest and rents — Commonwealth Arbitration Court reduced wages by 10 per cent — Commonwealth Bank assumed control of exchange rate — State Lottery initiated.

1932 Sydney Harbour Bridge opened — State Cabinet dismissed by Governor — Clarence River bridge completion extended the standard gauge railway to Brisbane — N.S.W. Industrial Commission constituted.

1933 State Family Endowment Tax abolished.

1934 Legislative Council reconstituted as an elected chamber — New States Royal Commission — England-Australia Air Mail inaugurated. Constitution of Greater Newcastle.

1935 State industrial undertakings (quarries, etc.) sold — Sydney County Council (electricity) formed.

1936 Import quotas imposed.

1937 Commonwealth Court's "basic wage" adopted for State awards — Co-operative home building societies sponsored.

1938 British Empire Games in Sydney — Empire air mail service — Australian Wheat Stabilisation Scheme.

1939 War with Germany (3 September) — National Security Act — Commonwealth Arbitration Court adopts 44-hours as standard week — Emergency control of exchange, prices, etc.

1940 Australian Forces abroad — Empire Air Training Scheme — First Australian overseas diplomatic representatives — School attendance compulsory from 6th birthday (formerly 7th) — War with Italy (11 June) — Compulsory Defence Training — Volunteer Defence Corps formed — Commonwealth industrial arbitration powers extended — National Advisory War Council — Petrol and newsprint rationed.

1941 Commonwealth income tax instalment payments — Commonwealth Government child endowment introduced — Commonwealth pay-roll tax imposed — Australian Forces in Malaya — War with Japan (8 December) — Coal miners' pensions introduced — United States-Australia Lend-lease Agreement.

1942 Fall of Singapore — Japanese submarine sunk in Sydney Harbour — Coupon rationing of clothing, tea, sugar — Uniform Commonwealth taxes replace State's income and entertainment taxes — Daylight saving — Commonwealth Government widows' pensions introduced — Open-cut coal mining begun.

1943 Compulsory defence service extended to South-west Pacific Zone — Prices stabilisation scheme — Commonwealth subsidies to reduce prices and to offset increases in basic wages — Butter rationed by coupons — School attendance compulsory from 6th to 15th birthday — Compulsory third-party motor vehicle insurance.

1944 Referendum on extended Commonwealth powers rejected — Meat rationed by coupons — "Pay-as-you-earn" system of Commonwealth income taxation.

1945 Cessation of hostilities: Europe, 8 May; Pacific, 15 August — Australia ratified United Nations Charter — Commonwealth unemployment and sickness benefits introduced.

1946 Commonwealth Government hospital benefits — Commonwealth-State agreements ratified: War Service Land Settlement, Housing, Hospital Benefits, Coal Industry — Wool auctions resumed — Immigration Agreement with United Kingdom — Additional Commonwealth powers sought by referendum: Social Services approved; Marketing of Primary Products and Industrial Employment rejected.

1947 Commonwealth Government tuberculosis benefits introduced — 40-hour week (State) — Banking (Nationalisation) Act — Australia joins International Monetary Fund and Bank — Compulsory voting for local government elections — Commonwealth wage subsidies cease and price stabilisation subsidies curtailed — Sugar rationing abolished.

1948 40-hour week (Commonwealth awards) — Commonwealth referendum: control of rents and prices rejected — Control of rents, prices, and land sales assumed by States — Banking (Nationalisation) Act held invalid by High Court — Australia New Zealand economic and trade co-operation agreement.

1949 Local government areas in County of Cumberland reduced from 66 to 41 — New motor vehicles sales and real property sales de-controlled — Dollar crisis — Devaluation of £A in terms of $U.S. — General Coal Strike (June-August); extensive industrial dislocation — Rationing of gas and electricity — Sydney's second university "New South Wales University of Technology" incorporated by Act of Parliament — Banking (Nationalisation) Act declared invalid by Privy Council — Snowy River Waters Act (water conservation and hydro-electricity scheme) — Nationality and Citizenship Act.

1950 Capital issues de-controlled — Petrol, tea, and butter rationing ended — Child endowment extended to first child in family — Commonwealth Government pharmaceutical benefits scheme introduced — First loan to Australia from International Bank — Communist Party Dissolution Act (Commonwealth) — Australian combat units fight with U.N. Forces in Korea — Commonwealth Arbitration Court raised female basic wage to 75 per cent of male rate; applied in State awards.

1951 Communist Party Dissolution Act invalidated by High Court — War gratuities paid — Record wool prices — Electricity zoning restricting industrial and commercial use to four days in five — Capital issues control reimposed — Compulsory defence training resumed — Long service leave for all workers under State awards — Commonwealth Government pensioners' medical scheme introduced — Commonwealth referendum, alteration of Constitution (Communism) rejected.

1952 ANZUS Treaty (U.S.A., Australia, and N.Z.) ratified — Last of emergency building controls removed.

1953 Royal Commission on television — Commonwealth Government medical benefits scheme introduced — Restrictions on consumption of electricity abolished — Armistice in Korea — Commonwealth Arbitration Court abolished quarterly adjustments of basic wage; applied in State awards — Compulsory unionism introduced in New South Wales.

1954 Commonwealth Royal Commission on espionage — Diplomatic relations with U.S.S.R. severed — Referendum on liquor trading hours in N.S.W.; majority for 10 p.m. closing.

1955 New liquor trading hours introduced (10 p.m. closing) — First power from Snowy Mountains Hydro-electric Scheme — Australian troops stationed in Malaya — Quarterly adjustments of basic wage reintroduced in State awards — N.S.W. legislation extending long service leave to all workers in N.S.W.

1956 Private trading banks authorised to operate savings banks — Commonwealth conciliation and arbitration system reorganised; Court to handle legal questions only, and Commission to settle disputes and determine awards — First regular television transmission in Australia from Sydney — Land tax reintroduced in N.S.W.

1957 Currency restrictions on overseas travel relaxed — Commonwealth uniform taxation legislation held valid by High Court — Agreement on commerce between Australia and Japan, giving Japan "most favoured nation" status.

1958 First nuclear reactor set in operation at Atomic Energy Research Establishment, Lucas Heights (near Sydney) — "Equal Pay" legislation covering females under State awards — New South Wales University of Technology renamed "New South Wales University" and commenced courses in Arts and Medicine — Defamation Act (N.S.W.).

1959 Commonwealth Bank undertakes to act as "lender of last resort" to authorised dealers in short-term money market — Diplomatic relations with U.S.S.R. resumed — Commonwealth legislation to form Commonwealth Banking Corporation and Reserve Bank of Australia — Commonwealth Arbitration Commission increased metal trades margins by 28 per cent.

1960 Almost all import licensing restrictions removed — Compulsory national service training abolished.

1961 Uniform divorce law for Australia in operation — Conveyancing (Strata Titles) Act — State referendum: abolition of Legislative Council rejected — Legislation to implement basic recommendations of Wyndham Report on secondary education.

1962 Albury-Melbourne standard-gauge railway in use — Special advisory authority to recommend emergency import tariffs or quotas — Aboriginals enfranchised — New N.S.W. Companies Act (uniform with other States" Acts) — N.S.W. population reaches 4,000,000.

1963 Commonwealth Arbitration Commission awards three weeks annual leave in metal trades; later adopted in most Commonwealth awards — Uniform marriage law for Australia in operation.

1964 State public servants awarded four weeks annual leave — Macquarie University (the third university in Sydney) established — Long service leave provisions incorporated in Commonwealth awards — Commonwealth grants for buildings and equipment in public and private secondary schools — Commonwealth housing grants to encourage savings for homes — Quarterly adjustments of State basic wage abolished — Off-course (totalizator) betting scheme introduced.

1965 Selective compulsory national service scheme reintroduced — Australian combat troops despatched to South Vietnam.

1966 Provisional driving licences introduced — Decimal currency system introduced in Australia — Legislation to permit the screening of films on Sundays.

1967 Referendum of electors in north-east N.S.W. : proposal for the establishment of a New State rejected — Total wage concept introduced in Commonwealth awards — First Higher School Certificate examination.

1968 Right of appeal to Privy Council from decisions of High Court abolished for cases involving Australian Constitution and other Commonwealth cases, and for cases involving Commonwealth law — Compulsory voting at local government elections rescinded — Qualifying period of residence for naturalisation of non-British migrants reduced from 5 to 3 years — Breathalyser tests of motor drivers introduced in N.S.W. (maximum 0.08 grams of alcohol per 100 millilitres).

1969 Points system for motor driving offences introduced in N.S.W. — State referendum : Sunday trading of hotels rejected.

1970 Announcement of gradual introduction of the metric system of measurement — Sydney-Perth (via Broken Hill) standard-gauge railway line opened — New Sydney International Air Terminal opened — Work commenced on the establishment of a major deepwater port at Botany Bay — Introduction of a flexible reserve price system at Australian wool sales.

1971 State Act lowers minimum age of legal responsibility from 21 to 18 years — Control of Pay-roll Tax transferred from Commonwealth to State Governments — Summer daylight saving of 1 hour introduced — Commonwealth Government guarantees woolgrowers a minimum price for wool.

1972 Commonwealth elections (December): A.L.P. Ministry (Whitlam) — Selective compulsory national service discontinued — Australian dollar revalued (7.05 per cent against U.S. dollar) — Arbitration Commission to introduce equal pay for equal work for women in all Commonwealth awards (by stages to June 1975).

1973 Diplomatic relations established between Australia and China — Commonwealth Public Service granted 4 weeks annual leave — Commonwealth Government selects Albury-Wodonga as its first regional "growth centre" — Voting rights in Commonwealth elections extended to persons aged from 18 to 20 years — Commonwealth Government announces abolition of tertiary education fees — Sydney Opera House officially opened.

1974 Tariff rates reduced by 25 per cent as an anti-inflationary measure — Four weeks annual leave (with payment of a 17.5 per cent loading) granted under all State awards — Australian dollar devalued by 12 per cent and direct link with U.S. dollar severed.

1975 First N.S.W. Ombudsman appointed — Arbitration Commission introduced wage indexation to quarterly cost-of-living increases on a trial basis — Introduction by the Commonwealth Government of a new health benefits scheme (Medibank) — New system of personal income tax (replacing income concessional deductions with tax rebates) introduced — Senate enlarged to 64 seats to give representation to the territories — Governor-General, Sir John Kerr, terminated Hon. E.G. Whitlam's commission as Prime Minister (November): Double dissolution of Commonwealth Parliament, elections (December): Liberal — N.C.P. Ministry (Fraser).

1976 Australian Savings Bonds introduced — State referendum on daylight saving: 63 per cent of voters in favour — N.S.W. State Elections: Labor Ministry (Wran) — Voting at local government council elections made compulsory — Australian dollar devalued by 17.5 per cent and a new flexible system adopted for subsequent exchange rate adjustments.

1977 Passenger train accident claimed over 80 lives in the Sydney suburb of Granville — State Government decided to abandon major portions of planned inner-urban freeways in Sydney.

1978 State referendum ("to provide for the election of Members of the Legislative Council directly by the people"): 73 per cent of voters in favour — Health insurance levy on income and compulsory private health insurance for non-levy payers abolished — "Land value" introduced as a basis for local government rating — N.S.W. population reaches 5,000,000 — Arbitration Commission to sit twice a year to adjust wages on CPI increases — Westmead Hospital opened.

1979 State power workers granted a 37.5 hour week — Eastern Suburbs Railway, from Central Station to Bondi Junction, commenced services — "Lotto" commenced in N.S.W. — Introduction of Sunday trading of hotels.

1980 Legislative powers of the States extended to coastal waters — Prescribed concentration of alcohol in the blood level above which a person may not drive was reduced from 0.08 to 0.05 grams per 100 millilitres — Multicultural television broadcasting (Channel 0) commenced — State Lotteries Office conducted its first $1m lottery — All female employees in N.S.W. entitled to take up to 52 weeks maternity leave — New land use planning and development decision making process introduced — Land and Environment Court commenced operations.

1981 Air Marshal Sir James Rowland sworn in as Governor of New South Wales — Further changes made to Health Insurance Scheme, with the introduction of means testing for free health treatment — The National Companies and Securities Commission (NCSC) became responsible for administering federal codes relating to the Securities Industry and Company Takeovers — The (Campbell) Committee of Inquiry into the Australian Financial System announced its recommendations to deregulate the financial system — State Government introduced public funding of parliamentary election campaigns — Arbitration Commission abandons wage indexation system: Commission to deal with applications as filed.

1982 Australian metal workers granted a 38-hour week — The Government announced the closure of beds and hospitals in the inner Sydney area affecting Sydney Hospital, the Mater Hospital, and Crown Street Women's Hospital. A new hospital at Mount Druitt, in the western area of Sydney, opened — Introduction of the tender system for the issue of Commonwealth Treasury Bonds — Special legislation introduced to recover, from vendor shareholders, company tax evaded in "bottom of the harbour" schemes — Random breath testing for detection of alcohol in motorists was introduced — The (Commonwealth) Freedom of Information Act became operative — BHP announced lower production levels for iron and steel and a contraction of its workforce at Newcastle and Port Kembla — The Australian Conciliation and Arbitration Commission and the Industrial Commission of N.S.W. both approved the freezing of wages and salaries from 23 December 1982 to 30 June 1983 — A record 53 of the 58 Pasture Protection Boards of N.S.W. had been drought declared at the end of the year.

1983 Federal elections (March): Labor Ministry (Hawke) — Extended shearers' strike over the introduction of wide combs — The Australian Labor Party and the Australian Council of Trade Unions (ACTU) endorsed the Prices and Incomes Accord — A National Economic Summit Conference was held — New Federal tax on debits to bank cheque accounts — State Government appointed the (Street) Royal Commission to investigate allegations of miscarriage of justice, through political interference by the Premier (Wran), in a Magistrates Court; the Commission found that a Chief Magistrate influenced the outcome of the case but rejected the allegation of political interference by the Premier — The State Government introduced the "Quit for Life" anti-smoking campaign — Income tax deductions at source introduced for contract work — Return to half-yearly wage indexation — Record wheat harvest.

1984 State Government announced a proposal to construct a $100 million grain terminal at Port Kembla — State elections (March) : Labor Ministry (Wran) — Legislative Assembly elected for a maximum period of four years — Reconstitution of the Legislative Council completed (now consists of 45 elected members) — "Advance Australia Fair" became the official National Anthem and green and gold were proclaimed to be the national colours of Australia — Deregulation of Australian stockbroking industry — Series of doctors strikes in public hospitals — Coin issued to replace the $1 note. Introduction of $100 note — Stage I of the Kooragang Coal Loader at Newcastle officially opened — Further deregulation of foreign exchange arrangements — New taxation arrangements for lump sum superannuation benefits — Crimes Act amended : decriminalisation of homosexual acts between consenting adult males — New Darling Harbour Authority constituted to promote and control development of the area — Extension of retail shopping hours to include Friday nights and Saturday afternoons — Artificial Conception Act proclaimed — Some regulations on banks, including deposit controls, were removed — The Sydney Water Board commenced work on a $270m project to provide deepwater sewerage outfalls at Malabar, North Head and Bondi — Federal elections (December): Labor Ministry (Hawke) — Membership of Senate increased to 76, House of Representatives to 148 — Qualifying period of residence for naturalisation of migrants reduced from 3 to 2 years.

1985 The training of nurses in colleges of advanced education commenced; shortages of nursing staff led to the closure of many hospital beds in Sydney — Institution of public education and awareness programs to combat the spread of Acquired Immune Deficiency Syndrome (AIDS) — The Australian Government invited 16 foreign banks to establish operations in Australia — Former Chief Stipendiary Magistrate, Murray Farquhar, was found guilty of attempting to pervert the course of justice by his attempt to influence another magistrate — An assets test became applicable to all social security and repatriation service pension recipients already subject to an income test — Interest rate control on bank loans under $100,000 for all purposes other than owner-occupied housing was removed — The Sydney Water Board announced the introduction of a new "pay for use" system of residential water rates — Introduction of a new system of Higher School Certificate award, putting more emphasis on a school assessment of the candidate — Virtual elimination of income tax advantage associated with the "negative gearing" of rental property investments — Introduction of unleaded petrol — A National Tax Summit Conference was held — The De Facto Relationship Act became operational — Australia's first communications satellite AUSSAT 1 was launched — The Commonwealth Government introduced bonds which have interest rates linked to the rate of inflation — The Commonwealth Government and the Australian Council of Trade Unions (ACTU) agreed to extend the Prices and Incomes Accord to October 1987, providing for: a 2 per cent discount in wage indexation; personal income tax reduction; amendments to wage fixing principles; and superannuation to be extended and improved — Changes to the tax system including the lowering of marginal tax rates for personal income; introduction of fringe benefit taxes (to be levied on the employer); abolition of tax allowances to employers for entertainment expenses; alignment of the top personal income tax rate with the company tax rate; introduction of tax relief for dividend recipients; introduction of a broad capital gains tax; rationalisation of existing wholesale sales taxes; and the introduction of an instalment system for the payment of farm losses against non-farm income — The major Australian banks announced that alternatives to bank foreclosures of farms will be sought in dealing with the particular hardships experienced by farmers — The Australian dollar suffered continual falls against other major currencies during the year; the resultant tight money policy of the Government caused record high interest rates for bank overdrafts — The payment of family allowances in respect of dependent students aged between 18 and 25 years was abolished, except in cases of specific need — The Australian Government announced that the Navy would gradually relocate its major establishments from Sydney Harbour and Parramatta River to Jervis Bay in the A.C.T.

1986 The Constitutional Commission, established to inquire into and report on the revision of the Australian Constitution, met for the first time — The Commonwealth Government announced Badgery's Creek as the site for Sydney's second airport — New regulations introduced in N.S.W. to speed up the process and reduce the cost of property transactions, and to reduce the risk of gazumping — Proclamation of the Australia Acts ended the powers of the United Kingdom Parliament and judicial system over the States of Australia — Interest rate ceiling on new home loans removed; existing loans were maintained at 13.5 per cent — The Commonwealth Government introduced the Young Homeless Allowance of $73.28 per week — The registration of the Builders Labourers' Federation (BLF) was cancelled — N.S.W. Parliament approved an increase in the number of members of the Lower House from 99 to 109 for the next election — The Commonwealth Public Service introduced permanent part-time employment — An Environment Impact Study was made into the proposal to build a tunnel for a second Sydney Harbour crossing by a private enterprise joint venture (Transfield and Kumagai Gumi) — Work commenced on the new Sydney Sports Ground at Moore Park — Tightening of controls over backyard burning in Sydney urban areas — Introduction of tax (46¢ in the dollar) on all major fringe benefits to be levied on the employer from 1 July; marginal personal income taxation rates reduced from 1 December 1986 — Neville Wran resigned as State Premier after over ten year's service; thus becoming the longest serving Premier in the State's history; Barry Unsworth chosen as new Premier — The New South Wales Industrial Commission granted nurses a 38-hour week and pay increases ranging from 2 to 59 per cent — In August, 328mm of rainfall was recorded in a 24-hour period, a record for the Sydney metropolitan area — The Commonwealth Government announced the introduction from 1987 of a $250 annual administration charge for tertiary students — The State Government passed an Act to make provision for the Darling Harbour Casino — The Australian dollar suffered continual falls against other major currencies during the year and interest rates for bank overdrafts remained at record high levels — The Australian Government's Affirmative Action Act proclaimed to promote equal opportunity for women in employment — Sydney City Council announced proposals for a Pitt Street Mall — Re-opening of the Queen Victoria Building (after $75 million restoration) as an arcade of specialist shops and restaurants — Increase in the Medicare levy from 1 per cent to 1.25 per cent of taxable income — The Mooney Mooney Bridge on the Sydney to Newcastle freeway was officially opened — Introduction of AUSTUDY — The Australian Conciliation and Arbitration Commission announced the abolition of wage indexation and the introduction of a two-tiered wage-fixing system.

1987 United Permanent Building Society became National Mutual Royal Savings Bank (N.S.W.) Ltd. — State Government announced the decision to close the Newcastle State Dockyard and make it available for use by the private sector — The Australian Conciliation and Arbitration Commission awarded a $10 per week pay rise to all wage and salary earners as part of a new two-tier wage system — First track laid for monorail from centre of Sydney to Darling Harbour — Commonwealth Government announced it will fund the establishment of the new Chifley University near Penrith — Implementation of the initial stages of a policy to ban smoking in Commonwealth Public Service offices from March 1988 — Administrator appointed following dismissal of Sydney City Council by the State Government — Seven people died of Legionnaire's Disease in Wollongong — Premiers' Conference decisions result in the combined total of Commonwealth net payments to, and authority borrowings by, the State and local government sector in 1987-88 being cut by around 7.5 per cent in real terms — The State Government announced the introduction of plastic driver's licences with photo identification from January 1988 — Toll on the Sydney Harbour Bridge increased to $1 for all vehicles to finance construction of a four-lane road tunnel under Sydney Harbour — Phasing out of class B widows pension commenced — State Government introduced Trans Cover Scheme, limiting pension and lump sum compensation payments for transport accident victims — Federal elections (July): Labor Ministry (Hawke) returned — State's Crown Prosecutors imposed work-to-rule to highlight alleged defects in the system of criminal justice — Ansett Transport Industries purchased East-West Airlines, retaining the name and routes flown. Subsequently, in order to avoid a monopoly situation, Ansett reached agreement with the Trade Practices Commission to relinquish some N.S.W. air routes and other interests — State Government released a report recommending a mandatory minimum penalty for juvenile car thieves found guilty of a second offence — The Commonwealth Government appointed a Royal Commission to investigate the deaths in custody of over 60 Aboriginals throughout Australia in recent years — A prison sentence was imposed on former N.S.W. Minister for Corrective Services, Rex Jackson, who was found guilty of conspiring to accept bribes for the release of prisoners — Commonwealth Government announced its intention to end the two-airlines policy — State Government announced decision to discontinue the automatic prison remission system for young offenders — The N.S.W. Supreme Court rejected a United Kingdom Government's attempt to prevent publication in Australia of "Spycatcher", the memories of a retired British spy Peter Wright, now an Australian resident — In implementing the Richmond Report, the State Government announced the planned closure of nine mental hospitals over the next eight years: patients will be moved to community hostels and group houses — Commonwealth Treasurer announced a balanced Budget and other measures including restoration of negative gearing of rental property investments, and a reduction in building depreciation allowance from 4 to 2.5 per cent — Eligibility for sole parent benefit or widows (class A) pension restricted to parents with children below the age of 16 — The Commonwealth Government announced the issue of a $2 coin from April 1988 — Reform of workers' compensation legislation including the imposition of a maximum lump-sum payment of $80,000 and the abolition of the right of employees to sue under common law — In order to dampen boom conditions in some capital city housing markets, the Commonwealth Government announced restrictions on the purchase of urban residences by foreign nationals — State Government institutes measures to help overcome long delays in the State's court system — Banks introduced charges for transactions on savings deposit accounts — Over 20,000 Vietnam veterans marched through Sydney in a belated "welcome home" parade — Victorian farmers given limited access to N.S.W. dairy market in return for cessation of cut-price interstate milk supplies — An income test on family allowances to apply to families with a joint parental income of $50,000 or more (adjustable for the number of children) — The State Government announced that the N.S.W. Institute of Technology is to become the University of Technology, Sydney (UTS) the State's seventh university — Following the introduction of satellite communications, and the Commonwealth Government's announcement of its intentions to amend media cross-ownership legislation, there were Australia-wide ownership changes to television and radio stations and media networks. In Sydney, the three commercial television stations changed ownership (channels 10, 9 and 7 were sold by the Murdoch, Packer and Fairfax organisations). In addition, many publishing assets of John Fairfax were sold as part of Warwick Fairfax's move to create private company ownership of The Sydney Morning Herald — State Government takes measures to ensure that persons convicted of serious crimes serve at least a 75 per cent nonparole period — The value of shares on the Australian stockmarket dropped by over 45 per cent during a two-month period (including a record 25 per cent drop in one day) as part of a world-wide fall in share prices — Introduction of the Weekly Family Allowance Supplement of $22 per child ($28 for 13 to 15 year olds) paid to working families with a threshold of $300 a week income (adjustable for the number of children) — From 1988 a Job Search Allowance will replace unemployment benefit for 16 and 17 year olds — Abolition of maximum retail prices for bread — All tenders to finance, develop and operate the Darling Harbour casino complex were rejected by the State Government. The Government invited government finance agencies to take responsibility for the financing, development and construction of the project and called for "expressions of interest" for the operation of the casino — Opening of Mount Tomah Botanic Gardens in Blue Mountains — Judge Goran's first report recommended the formation of a Central Sydney Commission to replace the Sydney City Council. Composed of 7 government appointees, the Commission would administer the central business district, as well as Ultimo, Pyrmont and The Rocks areas — Further anti-gazumping legislation introduced to State Parliament.

Appendix B

RESULTS OF THE 1986 POPULATION CENSUS

Number of Persons: Urban and Rural Distribution, N.S.W.

	Census of 30 June 1986				
Area of State	*Males*	*Females*	*Persons*	*Proportion of State population (per cent)*	*Persons at Census of 30 June 1981*
Urban centres in —					
Sydney Statistical Division —					
Urban Sydney	1,474,918	1,514,152	2,989,070	55.33	2,876,508
Other urban centres	119,831	126,364	246,195	4.56	206,612
Newcastle Statistical District —					
Urban Newcastle	126,067	129,720	255,787	4.74	258,972
Other urban centres	57,150	58,020	115,170	2.13	100,525
Wollongong Statistical District —					
Urban Wollongong	104,126	102,677	206,803	3.83	208,651
Other urban centres	5,582	5,928	11,510	0.21	9,492
Rest of New South Wales	454,577	468,101	922,678	17.08	857,716
Total Urban	*2,342,251*	*2,404,962*	*4,747,213*	*87.88*	*4,518,476*
Rural	339,204	310,613	649,817	12.03	603,515
Migratory	3,115	1,736	4.851	0.09	4,226
Total New South Wales	**2,684,570**	**2,717,311**	**5,401,881**	**100.00**	**5,126,217**

Number of Persons in Urban Sydney *(a)*

	Population			*Increase since previous Census*		
Date of Census	*Males*	*Females*	*Persons*	*Numerical*	*Proportional (per cent)*	*Proportion of State population (per cent)*
7 April 1861	46,550	49,239	95,789	*(b)*41,865	*(b)*77.64	27.3
2 April 1871	66,707	70,879	137,586	41,797	43.63	27.4
3 April 1881	112,763	112,176	224,939	87,353	63.49	30.0
5 April 1891	193,753	189,580	383,333	158,394	70.42	34.0
31 March 1901	236,018	245,812	481,830	98,497	25.69	35.6
3 April 1911	305,728	323,775	629,503	147,673	30.65	38.2
4 April 1921	433,492	465,567	899,059	269,556	42.82	42.8
30 June 1933	591,104	644,163	1,235,267	336,208	37.40	47.5
30 June 1947	714,821	769,183	1,484,004	248,737	20.14	49.7
30 June 1954	909,978	953,183	1,863,161	379,157	25.55	54.4
30 June 1961	1,077,978	1,105,410	2,183,388	320,227	17.19	55.7
30 June 1966	1,206,126	1,241,093	2,447,219	*(c)*249,881	*(c)*11.37	57.7
30 June 1971	1,349,847	1,375,217	2,725,064	277,845	11.35	59.2
30 June 1976	1,362,696	1,402,344	2,765,040	39,976	1.47	57.9
30 June 1981	1,416,052	1,460,456	2,876,508	111,468	4.03	56.1
30 June 1986	1,474,918	1,514,152	2,989,070	112,562	3.91	55.3

(a) The figures exclude full-blood Aboriginals before 1966. *(b)* Since 1851. *(c)* Calculated on the basis of the new urban criteria introduced in 1966 — see pages 43 and 44 in the 1986 issue of the N.S.W. Year Book.

Number of Persons in Principal Urban Centres *(a)* Outside Urban Sydney

Urban centre	*Census of 30 June* 1981	*Census of 30 June* 1986	*Urban centre*	*Census of 30 June* 1981	*Census of 30 June* 1986
Newcastle	258,972	255,787	*Moree*	10,459	10,215
Wollongong	208,651	206,803	*Casino*	9,743	10,067
Central Coast	*(b)*139,251	162,669	*Camden*	9,000	10,065
Maitland	38,865	43,247	*Muswellbrook*	8,548	9,988
Wagga Wagga	36,837	37,577	*Inverell*	9,734	9,693
Albury-Wodonga (part)(c)	35,072	37,164	*Nelson Bay*	7,931	9,376
Tamworth	29,657	30,729	*Kempsey*	9,037	9,335
Orange	27,626	28,935	*Kiama*	7,717	9,184
Dubbo	23,986	25,796	*Gunnedah*	8,909	9,144
Lismore	24,033	24,896	*Raymond Terrace*	7,548	8,793
Broken Hill	26,913	24,460	*Parkes*	9,047	8,739
Port Macquarie	19,581	22,884	*Cowra*	7,900	8,207
Gold Coast (part)(c)	19,269	22,280	*Lawson-Hazelbrook*	6,323	7,993
Bathurst	19,640	22,237	*Forbes*	8,029	7,915
Canberra-Queanbeyan (part)(c)	19,056	21,850	*Sawtell*	5,970	7,905
Goulburn	21,755	21,552	*Murwillumbah*	7,807	7,678
Nowra-Bomaderry	17,887	19,553	*Deniliquin*	7,354	7,566
Armidale	18,922	19,525	*Ulladulla*	6,018	7,408
Coffs Harbour	16,020	18,074	*Cooma*	7,978	7,406
Cessnock-Bellbird	16,916	17,506	*Bowral*	6,862	7,390
Richmond-Windsor	15,491	17,088	*Narrabri*	7,296	7,246
Grafton	17,005	16,647	*Young*	6,906	6,797
Taree	14,697	15,994	*Mudgee*	6,015	6,576
Katoomba-Wentworth Falls	13,942	15,627	*Batemans Bay*	4,924	6,492
Griffith	13,187	13,630	*Leeton*	6,498	6,421
Kurri Kurri-Weston	12,795	13,411	*Wangi-Rathmines*	5,106	6,343
Ballina	9,738	12,398	*Cootamundra*	6,540	6,314
Lithgow	12,793	12,369	*Tumut*	5,816	6,099
Forster-Tuncurry	9,261	11,239	*Glen Innes*	6,052	5,971
Singleton	9,572	10,990	*Wellington*	5,280	5,277
Moss Vale	4,415	5,016			

(a) Urban centres with a census count at 30 June 1986 of 5,000 or more. *(b)* Consists of the 1981 Census urban centres of Brisbane Water, Budgewoi Lake, The Entrance-Terrigal and Wyong. *(c)* Relates to that part of the urban centre in New South Wales. The population of the whole urban centre in 1981 and 1986 was — Albury-Wodonga 53,214 and 58,082 respectively; Gold Coast 154,706 and 185,612; Canberra-Queanbeyan 238,387 and 269,044.

Number of Persons in Statistical Areas *(a)* of New South Wales

Statistical area	*Number of persons at Census of 30 June* 1976	*Number of persons at Census of 30 June* 1981	*Number of persons at Census of 30 June* 1986	*Increase in persons* *Numerical* *1981 to 1986*	*Increase in persons* *Proportional* *1981 to 1986 (per cent)*
Statistical Division —					
Sydney	3,021,982	3,204,696	3,364,858	160,162	5.0
Hunter —					
Newcastle Statistical District	363,657	390,107	405,089	14,982	3.8
Balance of Hunter	58,476	68,615	77,686	9,071	13.2
Total, Hunter	*422,133*	*458,722*	*482,775*	*24,053*	*5.2*
Illawarra —					
Wollongong Statistical District	211,068	222,539	225,178	2,639	1.2
Balance of Illawarra	58,372	71,262	84,167	12,905	18.1
Total, Illawarra	*269,440*	*293,801*	*309,345*	*15,544*	*5.3*
Richmond-Tweed	106,180	135,928	153,009	17,081	12.6
Mid-North Coast *(b)*	142,403	178,988	208,654	29,666	16.6
Northern	168,047	174,242	177,309	3,067	1.8
North-Western	98,972	106,055	110,581	4,526	4.3
Central West	155,462	159,684	161,597	1,913	1.2
South-Eastern	127,951	140,597	156,110	15,513	11.0
Murrumbidgee	134,737	139,719	140,520	801	0.6
Murray	90,976	97,918	103,110	5,192	5.3
Far West	32,386	31,641	29,162	-2,479	-7.8
Migratory	6,434	4,226	4,851	625	14.8
New South Wales	**4,777,103**	**5,126,217**	**5,401,881**	**275,664**	**5.4**

(a) On the basis of the boundaries as delimited at 30 June 1986. *(b)* The Mid-North Coast Statistical Division includes Lord Howe Island.
NOTE. The sign (-) denotes a decrease.

Number of Persons: Municipalities and Shires in Sydney Statistical Division *(a)*

Municipality (M) or Shire (S)	*Number of persons at Census of 30 June* 1976	1981	1986	*Increase in persons 1981 to 1986*
Ashfield M	42,322	41,253	40,401	-852
Auburn M	47,556	46,622	47,147	525
Bankstown M (City)	155,843	152,636	151,570	-1,066
Baulkham Hills S	75,679	93,084	102,804	9,720
Blacktown M (City) *(b)*	159,734	181,139	192,442	11,303
Blue Mountains M (City)	45,798	55,877	63,866	7,989
Botany M	35,739	34,703	34,273	-430
Burwood M	29,045	28,896	28,556	-340
Camden M	14,597	17,096	18,870	1,774
Campbelltown M (City)	52,299	91,525	121,297	29,772
Canterbury M	128,710	126,741	128,502	1,761
Concord M	24,598	23,926	23,399	-527
Drummoyne M	31,516	30,961	30,605	-356
Fairfield M (City) *(b)*	114,603	129,557	153,522	23,965
Gosford M (City)	73,552	94,369	109,278	14,909
Hawkesbury S	28,667	36,757	43,629	6,872
Holroyd M	79,867	80,116	78,237	-1,879
Hornsby S	103,962	111,081	117,565	6,484
Hunter's Hill M	13,017	12,537	12,271	-266
Hurstville M	66,450	64,910	63,219	-1,691
Kogarah M	46,721	46,322	45,949	-373
Ku-ring-gai M	100,150	101,051	100,189	-862
Lane Cove M	29,341	29,113	29,113	-
Leichhardt M	62,550	57,332	56,303	-1,029
Liverpool M (City)	89,682	92,715	93,215	500
Manly M	36,709	37,080	35,730	-1,350
Marrickville M	87,821	83,448	81,647	-1,801
Mosman M	26,811	26,200	25,781	-419
North Sydney M	48,536	48,500	49,927	1,427
Parramatta M (City)	131,659	130,943	130,783	-160
Penrith M (City)	79,043	108,720	135,342	26,622
Randwick M	119,500	116,202	115,620	-582
Rockdale M	83,797	83,719	83,350	-369
Ryde M	89,137	88,948	89,252	304
Strathfield M	26,301	25,882	25,662	-220
Sutherland S	156,754	165,336	175,191	9,855
Sydney M (City) *(c)*	85,332	82,612	86,311	3,699
Warringah S	169,939	172,653	173,947	1,294
Waverley M	61,693	61,575	59,847	-1,728
Willoughby M	51,541	52,120	51,893	-227
Wollondilly S	14,790	19,830	24,928	5,098
Woollahra M	53,259	51,659	51,057	-602
Wyong S	47,362	68,950	82,368	13,418
Total, Sydney Statistical Division	**3,021,982**	**3,204,696**	**3,364,858**	**160,162**

(a) On the basis of boundaries as delimited at 30 June 1986. *(b)* On 1 January 1982 an area of 5.17 square kilometres containing about 110 persons, was transferred from Blacktown M. to Fairfield M. No adjustment has been made to the 1976 and 1981 census counts for the two municipalities. *(c)* Sydney M. absorbed South Sydney M. on 1 January 1982.
NOTE. The sign (-) denotes a decrease.

Number of Persons: Municipalities in N.S.W. outside Sydney Statistical Division *(a)*

Municipality	*Number of persons at Census of 30 June* 1976	1981	1986	*Increase in persons 1981 to 1986*
Albury (City)	32,964	36,684	38,704	2,020
Armidale (City)	19,711	18,922	19,525	603
Bathurst (City)	20,641	22,703	24,460	1,757
Broken Hill (City)	27,647	26,913	24,460	-2,453
Casino	9,791	10,117	10,618	501
Cessnock, Greater (City)	36,199	38,724	41,733	3,009
Deniliquin	6,865	7,354	7,566	212
Dubbo (City)	23,246	28,503	30,918	2,415
Glen Innes	5,953	6,052	5,971	-81
Goulburn (City)	21,735	21,755	21,552	-203
Grafton (City)	16,516	17,005	16,647	-358
Hastings	25,323	35,507	41,804	6,297
Kiama	8,666	11,368	13,443	2,075
Lake Macquarie	131,783	147,943	153,540	5,597
Lismore (City)	29,499	34,020	37,053	3,033
Lithgow, Greater (City)	18,949	19,671	19,785	114
Maitland (City)	36,002	39,938	44,315	4,377
Newcastle (City)	138,738	135,207	129,490	-5,717
Orange (City) *(b)*	28,710	30,351	31,710	1,359
Queanbeyan (City)	18,923	19,383	22,698	3,315
Shellharbour	37,316	41,790	43,872	2,082
Shoalhaven (City)	37,032	46,778	55,980	9,202
Tamworth (City)	29,395	31,779	33,321	1,542
Taree, Greater (City)	26,536	31,282	35,921	4,639
Wagga Wagga (City)	43,107	47,399	49,401	2,002
Wollongong (City)	165,086	169,381	167,863	-1,518

(a) Figures for all years are on the basis of boundaries as delimited at 30 June 1986. *(b)* On 1.1.84 an area of 11.09 square kilometres, containing an estimated 37 persons, was transferred from Orange City to Blayney Shire. No compensatory adjustment has been made to the 1981 and 1976 census counts for Orange City.
NOTE. The sign (-) denotes a decrease.

Number of Persons: Larger Shires *(a)* in N.S.W. outside Sydney Statistical Division

Shire	*Number of persons at Census of 30 June* 1976	1981	1986	*Increase in persons 1981 to 1986*
Tweed	27,526	40,050	45,690	5,640
Coffs Harbour	24,497	35,170	43,010	7,840
Port Stephens	20,935	28,295	36,011	7,716
Wingecarribee	21,340	24,484	28,187	3,703
Ballina	13,793	20,368	24,416	4,048
Bega Valley	17,013	20,293	23,758	3,465
Kempsey	17,041	19,582	22,900	3,318
Eurobodalla	11,764	16,497	21,519	5,022
Griffith	19,534	20,390	20,888	498
Great Lakes	12,608	17,152	20,440	3,288
Byron	10,916	15,426	18,342	2,916
Singleton	12,359	15,211	17,277	2,066
Moree Plains	15,411	17,229	17,018	-211
Inverell	15,448	15,641	15,586	-55
Narrabri	15,056	15,607	15,532	-75
Muswellbrook	11,520	12,978	14,892	1,914
Mudgee	11,451	13,118	14,845	1,727
Nambucca	9,674	11,674	14,588	2,914
Parkes	14,408	14,431	14,057	-374
Gunnedah	12,658	13,173	13,426	253
Maclean	8,562	10,831	12,023	1,192
Cowra	11,298	11,241	11,569	328
Tumut	10,987	11,399	11,507	108
Cabonne	11,508	11,435	11,383	-52
Parry	9,030	10,392	11,284	892
Leeton	11,287	11,089	10,989	-100
Forbes	10,934	10,993	10,736	-257
Young	10,154	10,682	10,652	-30
Bellingen	7,195	8,873	10,118	1,245
Cooma-Monaro	9,034	9,737	9,589	-148
Scone	7,382	8,330	9,298	968
Kyogle	8,388	8,929	9,210	281
Wellington	9,029	8,847	8,881	34
Snowy River	6,117	8,066	8,876	810
Lachlan	8,583	8,403	8,049	-354
Yass	6,939	7,125	8,034	909
Cootamundra	8,175	8,244	7,928	-316
Richmond River	6,267	7,018	7,680	662
Berrigan	7,075	7,302	7,644	342
Bland	8,140	8,033	7,638	-395
Walgett	7,272	7,387	7,621	234
Narrandera	7,782	7,548	7,386	-162
Wentworth	6,360	6,873	7,380	507
Coonabarabran	7,250	7,287	7,362	75
Corowa	5,437	6,212	7,240	1,028
Dungog	5,718	5,950	6,614	664
Tenterfield	6,616	6,679	6,567	-112
Narromine	6,298	6,356	6,462	106
Yarrowlumla	3,171	4,251	6,373	2,122
Temora	6,604	6,457	6,241	-216
Blayney (b)	6,085	6,007	5,870	-137
Coonamble	5,839	5,821	5,701	120
Cobar	4,618	5,323	5,635	312
Uralla	4,753	5,152	5,527	375
Hume	3,864	4,690	5,519	829
Junee	5,785	5,621	5,220	-401
Quirindi	5,305	5,303	5,215	-88

(a) Shires with a Census count at 30 June 1986 of 5,000 or more. Figures for all years are on the basis of boundaries as delimited at 30 June 1986. *(b)* On 1 January 1984 an area of 11.09 square kilometres, containing an estimated 37 persons, was transferred from Orange City to Blayney Shire. No compensatory adjustment has been made to the 1981 and 1976 census counts for Blayney Shire.

NOTE. The sign (-) denotes a decrease.

Age Distribution of Persons, N.S.W., 30 June 1986

Age group (years)	Number			Proportion		
	Males	*Females*	*Persons*	*Males (per cent)*	*Females (per cent)*	*Persons (per cent)*
0- 4	209,104	199,218	408,322	7.79	7.33	7.56
5- 9	203,379	193,590	396,969	7.58	7.12	7.35
10-14	225,089	214,110	439,199	8.38	7.88	8.13
15-19	222,366	212,307	434,673	8.28	7.81	8.05
20-24	219,312	213,233	432,545	8.17	7.85	8.01
25-29	221,691	222,046	443,737	8.26	8.17	8.21
30-34	210,574	211,548	422,122	7.84	7.79	7.81
35-39	214,486	209,467	423,953	7.99	7.71	7.85
40-44	176,271	168,396	344,667	6.57	6.20	6.38
45-49	147,839	140,732	288,571	5.51	5.18	5.34
50-54	129,119	124,157	253,276	4.81	4.57	4.69
55-59	134,035	131,084	265,119	4.99	4.82	4.91
60-64	123,221	130,636	253,857	4.59	4.81	4.70
65-69	94,798	109,919	204,717	3.53	4.05	3.79
70-74	73,630	94,103	167,733	2.74	3.46	3.11
75-79	45,889	68,042	113,931	1.71	2.50	2.11
80 or more	33,767	74,723	108,490	1.26	2.75	2.01
Total all ages	**2,684,570**	**2,717,311**	**5,401,881**	**100.00**	**100.0**	**100.0**
Summary —						
0- 5	250,696	238,513	489,209	9.34	8.78	9.06
6-14	386,876	368,405	755,281	14.41	13.56	13.98
15-20	264,422	252,586	517,008	9.85	9.30	9.57
21-64	1,534,492	1,511,020	3,045,512	57.16	55.61	56.38
65 or more	248,084	346,787	594,871	9.24	12.76	11.01

Proportional Age Distribution of Persons in Statistical Divisions, 30 June 1986 (per cent)

Statistical Division	Proportion in age group (years)—						
	0-14	*15-24*	*25-34*	*35-44*	*45-64*	*65-74*	*75 or more*
Sydney	22.17	16.40	16.40	14.73	19.51	6.64	4.15
Hunter	23.24	15.95	15.76	13.57	19.76	7.50	4.21
Illawarra	24.21	15.62	15.47	13.54	20.60	6.99	3.56
Richmond-Tweed	24.17	13.71	15.00	12.88	20.13	9.25	4.86
Mid-North Coast	23.96	12.97	14.25	13.28	21.20	9.51	4.82
Northern	25.93	16.53	14.96	13.53	19.06	6.18	3.81
North-Western	26.53	15.48	15.35	13.48	19.37	6.14	3.64
Central West	25.87	15.76	14.92	13.44	19.27	6.55	4.20
South-Eastern	23.73	15.93	16.31	13.46	19.72	7.18	3.68
Murrumbidgee	26.38	16.83	15.68	12.93	18.42	6.00	3.77
Murray	25.56	15.52	15.87	13.50	19.29	6.48	3.78
Far West	22.62	15.10	16.52	12.80	21.12	7.62	4.22
New South Wales *(a)*	**23.04**	**16.05**	**16.03**	**14.23**	**19.64**	**6.89**	**4.12**

Sex Ratio *(a)* of Persons *(b)* in Age Groups, N.S.W.

Census	Age group (years)									
	0-9	*10-19*	*20-29*	*30-39*	*40-49*	*50-59*	*60-69*	*70-79*	*80 or more*	*All ages*
1861	101	101	138	170	179	216	259	231	299	130
1881	102	103	126	141	161	168	156	168	201	121
1901	102	101	99	119	137	131	139	142	120	110
1921	103	102	95	105	108	117	119	107	100	104
1947	104	104	100	100	103	97	95	84	78	100
1961	104	105	109	107	102	104	84	75	58	101
1966	105	105	105	108	103	101	88	69	55	101
1971	105	105	106	106	105	99	90	66	51	101
1976	105	105	101	104	106	99	89	70	44	99
1981	105	105	101	103	105	101	89	73	43	99
1986	105	105	101	101	105	103	91	74	45	99

(a) Males per 100 females. *(b)* Full-blood Aboriginals are excluded before 1966.

Marital Status of Persons N.S.W., 30 June 1986

	Number			*Proportion*		
Marital status	*Males*	*Females*	*Persons*	*Males (per cent)*	*Females (per cent)*	*Persons (per cent)*
Never married —						
Under age 15	637,572	606,918	1,244,490	23.75	22.34	23.04
Age 15 or more	667,109	510,493	1,177,602	24.85	18.79	21.80
Married	1,188,328	1,190,763	2,379,091	44.27	43.82	44.03
Separated, not divorced	48,472	58,621	107,093	1.81	2.16	1.98
Widowed	51,932	234,710	286,642	1.93	8.64	5.31
Divorced	91,157	115,806	206,963	3.40	4.26	3.83
Total	**2,684,570**	**2,717,311**	**5,401,881**	**100.00**	**100.00**	**100.00**

Religious Denominations of Persons, N.S.W., 30 June 1976, 1981 and 1986

	Number of persons			*Proportion of total stating religious denomination (per cent) (a)*		
Religious denomination	*1976*	*1981*	*1986*	*1976*	*1981*	*1986*
Christian —						
Catholic *(b)*	1,314,371	1,424,499	1,529,176	30.9	30.7	31.5
Church of England	1,538,784	1,569,374	1,519,806	36.2	33.9	31.3
Uniting Church *(c)*	271,812	328,263	327,360	6.4	7.1	6.7
Presbyterian and Reformed Churches *(c)*	310,199	252,725	227,663	7.3	5.5	4.7
Orthodox	143,558	171,427	165,659	3.4	3.7	3.4
Baptist	57,865	64,663	67,187	1.4	1.4	1.4
Lutheran	30,535	31,696	31,890	0.7	0.7	0.7
Salvation Army	18,976	21,976	24,791	0.4	0.5	0.5
Pentecostal	7,086	14,281	24,273	0.2	0.3	0.5
Jehovah's Witness	11,637	15,239	19,101	0.3	0.3	0.4
Seventh Day Adventist	16,301	19,049	18,418	0.4	0.4	0.4
Church of Christ	13,059	14,195	15,147	0.3	0.3	0.3
Latter-Day Saints	*(d)*	10,186	11,178	n.a.	0.2	0.2
Congregational *(c)*	16,643	9,113	7,086	0.4	0.2	0.1
Brethren	5,232	6,007	6,616	0.1	0.1	0.1
Other Protestant, incl. undefined	45,457	48,880	45,850	1.1	1.1	0.9
Other Christian, incl. undefined	69,415	80,969	116,405	1.6	1.7	2.4
Total Christian	*3,870,930*	*4,082,542*	*4,157,606*	*91.1*	*88.1*	*85.5*
Other Religions-						
Muslim	22,206	38,527	57,551	0.5	0.8	1.2
Buddhist	n.a.	15,635	35,113	n.a.	0.3	0.7
Jewish	21,700	25,176	28,236	0.5	0.5	0.6
Hindu	n.a.	n.a.	10,297	n.a.	n.a.	0.2
Other	10,055	9,773	9,363	0.2	0.2	0.2
Total Other Religions	*53,960*	*89,111*	*140,560*	*1.3*	*1.9*	*2.9*
Non Theistic	n.a.	n.a.	2,306	n.a.	n.a.	0.1
Indefinite	14,377	20,259	17,964	0.3	0.4	0.4
No religion	309,195	443,159	539,467	7.3	9.6	11.1
Total stating religion	**4,248,462**	**4,635,071**	**4,857,903**	**100.0**	**100.0**	**100.0**
No reply	528,633	491,146	543,978			
Total persons	**4,777,095**	**5,126,217**	**5,401,881**			

(a) See text below table. *(b)* Includes Roman Catholic and Catholic. *(c)* From June 1977, the Uniting Church was formed from the amalgamation of the Methodist Church of Australasia, the Congregational Union of Australia and a minority of churches formerly affiliated with the Presbyterian Church of Australia. All denominations coded to Methodist in earlier censuses have been coded to Uniting Church for the 1986 Census. *(d)* Included in "Other Christian".

Age Distribution of Aboriginals and Torres Strait Islanders, N.S.W., 30 June 1986

Age	*Males*	*Females*	*Persons*	*Age*	*Males*	*Females*	*Persons*
0- 4	4,342	4,087	8,429	*45-54*	1,701	1,796	3,497
5- 9	3,637	3,538	7,175	*55-59*	533	584	1,117
10-14	4,072	3,953	8,025	*60-64*	335	413	748
15-19	3,903	3,840	7,743	*65-69*	236	243	479
20-24	3,098	3,167	6,265	*70+*	276	456	732
25-34	4,363	4,615	8,978				
35-44	2,769	3,054	5,823	**Total**	**29,265**	**29,746**	**59,011**

Appendix C

PRELIMINARY RESULTS OF THE 1985-86 RETAIL CENSUS

The 1985-86 Census of Retail Establishments includes establishments classified to the Retail Trade Sub-division of ASIC except bread and milk vendors, shoe repairers and electric appliance repairers n.e.c.

The following two tables provide preliminary results of the 1985-86 Retail Census, and include figures from the previous census conducted in respect of the year 1979-80. The earlier figures differ from those shown in Chapter 20, Internal Trade, as they include data for single establishment retail enterprises with a turnover of less than $50,000. To assist in analysing results, the earlier turnover figures have also been expressed at average 1985-86 prices.

Retail Establishments: Summary of Operations by Industry Group, N.S.W., 1985-86

Industry group		*Establishments at 30 June*		*Persons at 30 June (a)*		*Wages and salaries (b)*		*Turnover*	
ASIC code	*Description*	*No.*	*Per cent*	*'000*	*Per cent*	*$m*	*Per cent*	*$m*	*Per cent*
481	Department and general stores	242	0.4	36.0	11.3	459.7	15.2	3,140.8	9.8
484	Clothing, fabrics and furniture stores *(c)*	8,814	15.6	34.2	10.8	323.3	10.7	2,837.8	8.8
485	Household appliance and hardware stores *(d)*	5,266	9.3	21.6	6.8	222.5	7.3	2,034.5	6.3
486	Motor vehicle dealers; petrol and tyre retailers *(e)*	13,342	23.6	76.1	24.0	923.6	30.5	12,789.7	39.9
488	Food stores	18,831	33.4	110.4	34.8	812.7	26.8	8,608.1	26.8
489	Other retailers	9,961	17.6	39.0	12.3	287.0	9.5	2,664.1	8.3
Total retail industry									
	1985-86	**54,456**	**100.0**	**317.3**	**100.0**	**3,028.8**	**100.0**	**32,075.0**	**100.0**
	1979-80	**49,296**		**280.3**		**1,633.9**		**16,359.9**	
	1979-80 (at average 1985-86 prices)	..		..		..		**26,115.3**	

(a) Includes working proprietors. *(b)* Excludes drawings of working proprietors. *(c)* Excludes ASIC class 4846 shoe repairers. *(d)* Excludes ASIC class 4857 electric appliance repairers n.e.c., and establishments predominantly engaged in selling building materials, paint, tools of trade, etc. *(e)* Establishments predominantly engaged in wholesaling new motor vehicles are included in this group.

Retail Establishments: Selected Ratios by Industry Group, N.S.W., 1979-80 and 1985-86

Industry group		*Establishments at 30 June*		*Persons employed per establishment (a)*		*Turnover at average 1985-86 prices per:- Establishment*		*Turnover at average 1985-86 prices per:- Person employed*	
ASIC code	*Description*	*1979-80 No.*	*1985-86 No.*	*1979-80 No.*	*1985-86 No.*	*1979-80 $'000*	*1985-86 $'000*	*1979-80 $'000*	*1985-86 $'000*
481	Department and general stores	276	242	138.2	148.7	9,524	12,979	69	87
484	Clothing, fabrics and furniture stores *(b)*	8,093	8,814	4.0	3.9	293	322	73	83
485	Household appliance and hardware stores *(c)*	3,548	5,266	4.5	4.1	381	386	84	94
486	Motor vehicle dealers; petrol and tyre retailers *(d)*	11,745	13,342	5.7	5.7	883	959	155	168
488	Food stores	17,061	18,831	5.5	5.9	420	457	76	78
489	Other retailers	8,573	9,961	3.8	3.9	260	267	69	68
	Total retail industry	**49,296**	**56,456**	**5.6**	**5.7**	**530**	**568**	**93**	**101**

(a) Includes working proprietors. *(b)* Excludes ASIC class 4846 shoe repairers. *(c)* Excludes ASIC class 4857 electric appliance repairers n.e.c., and establishments predominantly engaged in selling building materials, paint, tools of trade, etc. *(d)* Establishments predominantly engaged in wholesaling new motor vehicles are included in this group.

Further information concerning this census is published in *Retail Industry: Australia, 1985-86 (Preliminary)* Catalogue 8613.0. More detailed results will be published at a later date.

Appendix D

NEW SOUTH WALES ADMINISTRATIVE ARRANGEMENTS

NEW SOUTH WALES GOVERNMENT MINISTRY

Details of the New South Wales Ministry, sworn-in on 26 November 1987 and currently in Office when this manuscript of the Year Book was prepared in December 1987, were as follows:-

Premier, Minister for State Development and Minister for Ethnic Affairs — The Hon. B.J. Unsworth, M.P.

Deputy Premier and Attorney General — The Hon. R.J. Mulock, M.P.

Minister for Housing and Minister for the Arts — The Hon. F.J. Walker, Q.C., M.P.

Minister for Industrial Relations and Minister for Employment — The Hon. P.D. Hills, M.P.

Minister for Health and Minister for the Drug Offensive — The Hon. P.T. Anderson, M.P.

Treasurer — The Hon. K.G. Booth, M.P.

Minister for Transport — The Hon. T.W. Sheahan, M.P.

Minister for Public Works and Minister Assisting the Premier — The Hon. P.F. Cox, M.P.

Minister for Agriculture, Minister for Lands, Minister for Forests and Vice-President of the Executive Council — The Hon.J.R. Hallam, M.L.C.

Minister for Education — The Hon. R.M. Cavalier, M.P.

Minister for Sport and Recreation, Minister for Racing and Minister for Tourism — The Hon. M.A. Cleary, M.P.

Minister for Police and Emergency Services — The Hon. George Paciullo, M.P.

Minister for Local Government, Minister for Water Resources and Assistant Minister for Transport — The Hon. Janice Crosio, M.P.

Minister for Finance, Minister for Co-operative Societies and Assistant Minister for Education — The Hon. R.J. Debus, M.P.

Minister for Corrective Services and Assistant Minister for Transport — The Hon. J.E. Akister, M.P.

Minister for Planning and Environment and Minister for Heritage — The Hon. R.J. Carr, M.P.

Minister for Youth and Community Services and Assistant Minister for Ethnic Affairs — The Hon. J.J. Aquilina, M.P.

Minister for Minerals and Energy and Minister for Aboriginal Affairs — The Hon. K.G. Gabb, M.P.

Minister for Consumer Affairs, Minister for Small Business and Assistant Minister for Health — The Hon. Deirdre Grusovin, M.L.C.

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